SECTION 09 65 19

RESILIENT TILE FOORING

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* Karndean Designflooring; resilient tile flooring, adhesives.  
.  
This section is based on the products of Karndean Designflooring, which is located at:  
1100 Pontiac Court  
Export, PA 15632  
Toll Free: 888-266-4343  
Fax: 800-887-7043  
Web: http://www.karndean.com  
Email: info@karndean.com  
  
[ [Click Here](http://www.arcat.com/company/43494) ] for additional information.  
  
Quality, design, service, and availability: Those are the hallmarks of Karndean Designflooring. We develop luxury flooring inspired by nature. We are the leader in Designflooring - we make it easy to find the perfect floor to suit any space and style. As a luxury brand, we offer the beauty of natural products without the practical drawbacks.  
  
At Karndean, we believe that providing excellent customer service is paramount. We are a US-based company with state-of-the-art showroom and warehouse facilities in Pittsburgh, Dallas, and Las Vegas. We provide fast, direct shipping to anywhere in the US and our knowledgeable customer service team is available to answer your calls from 8 am to 8 pm (ET).  
  
Originally founded in the United Kingdom in 1973, Karndean has more than 50 years of experience in luxury vinyl flooring. Karndean has been, and still is, family owned. We remain true to our roots and are fiercely committed to our customers.

1. GENERAL
   1. SECTION INCLUDES
      1. Resilient tile flooring.
         1. Opus Range.
         2. Knight Tile and Knight Tile Rigid Core.
         3. Van Gogh and Van Gogh Rigid Core.
         4. Karndean Looselay.
         5. Art Select Range.
         6. Art Select Range Rigid Core.
         7. Korlock Select and Korlock Reserve Ranges.
         8. Ktrade Gluedown Range.
         9. Ktrade Looselay Range.
         10. Ktrade Rigid Core Range.
      2. Accessories.
      3. Moisture barrier membrane.
      4. Noise reduction underlayment.
   2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 30 00 - Cast-in-Place Concrete.
    2. Section 06 10 00 - Rough Carpentry.
    3. Section 07 27 19 - Plastic Sheet Air Barriers .
    4. Section 09 65 16 - Resilient Sheet Flooring.
    5. Section 09 65 13 - Resilient Base and Accessories.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. American Association of Textile Chemists and Colorists, AATCC 134 - Electrostatic Propensity of Carpets.
    2. ASTM International (ASTM):
       1. ASTM D2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine.
       2. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.
       3. ASTM D3884 - Standard Guide for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method), Abrasion Wheels- H18 with 1000 grams load.
       4. ASTM D4060 - Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
       5. ASTM E492 - Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine.
       6. ASTM E662 - Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
       7. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
       8. ASTM E989 - Standard Classification for Determination of Impact Insulation Class (IIC).
       9. ASTM F137 - Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus.
       10. ASTM F386 - Standard Test Method for Thickness of Resilient Flooring Materials Having Flat Surfaces.
       11. ASTM F925 - Standard Test Method for Resistance to Chemicals of Resilient Flooring.
       12. ASTM F970 - Standard Test Method for Static Load Limit.
       13. ASTM F1514 - Standard Test Method for Measuring Heat Stability of Resilient Flooring by Color Change.
       14. ASTM F1515 - Standard Test Method for Measuring Light Stability of Resilient Flooring by Color Change.
       15. ASTM F1700 - Standard Specification for Solid Vinyl Floor Tile.
       16. ASTM F1914 - Standard Test Methods for Short-Term Indentation and Residual Indentation of Resilient Floor Covering.
       17. ASTM F2055 - Standard Test Method for Size and Squareness of Resilient Floor Tile by Dial Gage Method.
       18. ASTM F2199 - Standard Test Method for Determining Dimensional Stability of Resilient Floor Tile after Exposure to Heat.
       19. ASTM F3261- Standard Specification for Resilient Flooring in Modular Format with Rigid Polymetric Core.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Provide detailed data on each product to be used including but not limited to the following information as applicable:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.
        4. Maintenance recommendations.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two sets of each type, colors and finish of resilient flooring and accessory required, indicating full range of color and pattern variation.
    2. Verification Samples: For each finish product specified, two sets of each type, colors and finish of resilient flooring and accessory required, indicating color and pattern of actual product, including variations, as proof of application compliance.
    3. Closeout Submittals: Submit three copies of the following:
       1. Maintenance and operation data includes - methods for maintaining installed products, and precautions against cleaning materials and methods detrimental to finishes and performance.
       2. Documentation of warranty specified herein.
    4. Flame Spread Certification: Submit manufacturer's certification that resilient flooring furnished for areas indicated to comply with required flame spread rating has been tested and meets or exceeds indicated or required standard.
  1. QUALITY ASSURANCE

\*\* NOTE TO SPECIFIER \*\* Add quality requirements if required. Delete if not required.

* + 1. Installer Qualifications: Minimum two years' experience, and have completed at least three projects of similar magnitude, material, and complexity. Upon request, provide project references including contact names and telephone numbers for three projects.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
       1. Finish areas designated by Architect.
       2. Do not proceed with remaining work until workmanship, color, sheen, and finished appearance are approved by Architect.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Store products in manufacturer's unopened packaging until ready for installation.
     2. Flooring material and adhesive shall be acclimated to the installation area for a minimum of 48 hours prior to installation.
     3. Store cartons of tile products flat and squarely on top of one another, not on edge.

\*\* NOTE TO SPECIFIER \*\* Delete if specified application does not include design strips or borders.

* + 1. Store tubes of design strips and borders in a horizontal position. Storage in a vertical or inclined position causes uneven weight distributions, which will spaghetti the ends of the design strips. Store all tubes lying flat.
  1. PROJECT CONDITIONS
     1. Environmental Requirements/Conditions: In accordance with manufacturer's recommendations. Areas to receive flooring shall be clean, fully enclosed, weather tight with the permanent HVAC set at a uniform temperature of at least 65 degrees F (18 degrees C) and less than 85 degrees (30 degrees C) 48 hours prior to and during and for not less than 48 hours after installation. The flooring material shall be conditioned in the same manner prior to installation.
     2. Close off areas to traffic during resilient flooring installation, and for a period of time after installation as recommended in writing by the manufacturer.
     3. Install resilient flooring materials and accessories after other finishing operations, including painting, have been completed.
     4. Where demountable partitions and other items are indicated for installation on top of sheet resilient flooring material, install flooring material before these items are to be installed.
     5. Concrete substrates must be tested in accordance with ASTM F2170 or ASTM F1869. If the results exceed limits of the product or adhesive to be used a moisture mitigation system or damp-proof membrane must be installed to bring moisture levels within specifications.
     6. Store tubes of design strips and borders in a horizontal position. Storage in a vertical or inclined position causes uneven weight distributions, which will spaghetti the ends of the design strips. Store all tubes lying flat.
  2. WARRANTY
     1. Warranty Period: Manufacturer's standard warranty against manufacturing defects and wearing for flooring are as follows:

\*\* NOTE TO SPECIFIER \*\* Delete warranty periods based on requirements of project and availability with products specified.

* + - 1. Opus and Opus Heritage Range:
         1. 15-year commercial warranty.
         2. Lifetime residential warranty.
      2. Knight Tile and Knight Tile Rigid Core Ranges:
         1. 10-year commercial warranty.
         2. Lifetime residential warranty.
      3. Van Gogh and Van Gogh Rigid Core Ranges:
         1. 15-year commercial warranty.
         2. Lifetime residential warranty.
      4. Karndean LooseLay Range:
         1. 15-year commercial warranty.
         2. Lifetime residential warranty.
      5. Art Select and Art Select Rigid Core Ranges:
         1. 20-year commercial warranty.
         2. Lifetime residential warranty.
      6. Korlok Select and Korlok Reserve Ranges:
         1. 15-year commercial warranty.
         2. Lifetime residential warranty.
      7. KTrade Gluedown Range:
         1. 10-year commercial warranty.
         2. Lifetime residential warranty.
      8. KTrade LooseLay Range:
         1. 15-year commercial warranty.
         2. Lifetime residential warranty.
      9. KTrade Rigid Core Range:
         1. 10-year commercial warranty.
         2. Lifetime residential warranty.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. EXTRA MATERIALS
     1. Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 closeout submittals requirements.
        1. Quantity: Furnish quantity of flooring units equal to 2 percent of amount installed. Karndean Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage, and protection of extra materials.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Karndean Designflooring, which is located at: 1100 Pontiac Ct.; Export, PA 15632; ASD Toll Free Tel: 888-266-4343; Fax: 800-887-7043; Email: info@karndean.com; Web: www.karndean.com

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - OPUS AND OPUS HERITAGE RANGE
     1. Resilient Tile Flooring: Opus Range Planks by Karndean Designflooring.
        1. Dimensions: 36 by 6 inches (915 by 152 mm).
        2. Thickness: 3/32 inches (2.5 mm).
        3. Wear Layer: 20 mil (0.5 mm).
        4. Beveled Edge: Micro bevel.
        5. Compliance: ASTM F1700.
        6. Classification: ASTM F1700: Class 3 Type B.
        7. Reaction to Fire:
           1. ASTM E648-06: Class 1.
           2. ASTM E662-15a: Pass.
        8. Staining Resistance: ASTM F925: Pass.
        9. Light Fastness: ASTM F1515: Less than 8.
        10. Dimensional Stability: ASTM F2199: Pass.
        11. Indentation, Residual: ASTM F1914: Pass.
        12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. WP311 GRANO.
        2. WP313 IGNEA.
        3. WP316 RUBRA.
        4. WP318 CARBO.
        5. WP321 LUTEUS.
        6. WP322 CANITIA.
        7. WP325 ARRADO.
        8. WP326 NATURAL WALNUT.
        9. WP328 WASHED WALNUT.
        10. WP329 BLEACHED GREY WALNUT.
        11. WP330 TENEBRA WALNUT.
        12. WP331 TEXTUM.
    1. Resilient Tile Flooring: Opus Range Planks by Karndean Designflooring.
       1. Dimensions: 48 by 9 inches (1219 by 228 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. WP411 NIVEUS.
        2. WP413 MAGNA.
        3. WP414 ARGEN.
        4. WP415 ORDO.
    1. Resilient Tile Flooring: Opus Range Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 18 inches (457 by 457 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SP115 NERO.
        2. SP116 NOALE.
        3. SP117 LUCA.
        4. SP118 SALUTE GRISIO.
    1. Resilient Tile Flooring: Opus Range Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 24 inches (457 by 610 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SP212 TERRA.
        2. SP213 URBUS.
        3. SP216 FUMO.
        4. SP218 LUTUM.
        5. SP219 CASABLANCA.
        6. SP220 MARRAKESH.
    1. Resilient Tile Flooring: Opus Range Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 3 inches (457 by 76 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:
         1. SM-SP216 FUMO.
    1. Resilient Tile Flooring: Opus Range Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 36 inches (457 by 915 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884:124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SP714 CLARUS.
        2. SP723 ZINC.
        3. SP725 CHALK GREY.
        4. SP728 BLACK IRON.
        5. SP729 SAN MARCO.
        6. SP730 LEONCINI.
        7. SP731 STRATUS.
        8. SP732 UMBRA.
        9. SP733 ALBERTINA.
        10. SP734 CONTARINI.
        11. SP735 TIZINA.
    1. Resilient Tile Flooring: Opus Range Planks by Karndean Designflooring.
       1. Dimensions: 36 by 4 inches (915 by 102 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:
         1. WP511 WEATHERED ELM.
    1. Resilient Tile Flooring: Opus Range Tiles by Karndean Designflooring.
       1. Dimensions: 36 by 6 inches (915 by 152 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SP719 BURNT SIENNA.
        2. SP720 INDIGO.
        3. SP721 AMBER.
        4. SP722 ZINC.
        5. SP724 CHALK GREY.
        6. SP726 YELLOW OCHRE.
        7. SP727 BLACK IRON.
    1. Resilient Tile Flooring: Opus Heritage Range Tiles by Karndean Designflooring.
       1. Dimensions: 9 by 9 inches (228 by 228 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item number and name not required.

* + - * 1. CLIF-01 CLIFTON.
        2. CLIF-04 CLIFTON.

\*\* NOTE TO SPECIFIER \*\* Delete resilient floor tile type if not required.

* + 1. Resilient Tile Flooring: Opus Heritage Range Tiles by Karndean Designflooring.
       1. Dimensions: 12 by 12 inches (305 by 305 mm).
       2. Thickness: 3/32 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F1700.
       6. Classification: ASTM F1700: Class 3 Type B.
       7. Reaction to Fire:
          1. ASTM E648-06: Class 1.
          2. ASTM E662-15a: Pass.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Less than 8.
       10. Dimensional Stability: ASTM F2199: Pass.
       11. Indentation, Residual: ASTM F1914: Pass.
       12. Abrasion Resistance: ASTM D3884: 124,000 cycles.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0120 m^2K/W.
      2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
      3. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item number and name not required.

* + - * 1. MAYF-01 MAYFAIR.
        2. MAYF-02 MAYFAIR.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - KNIGHT TILE AND KNIGHT TILE RIGID CORE
     1. Resilient Tile Flooring: Knight Tile Range Chevron Planks by Karndean Designflooring.
        1. Dimensions: 48 by 9 inches (1219 by 228 mm).
        2. Wear Layer Thickness: 12 mil (0.3 mm).
        3. Tile Thickness: 0.08 inches (2 mm).
        4. Edge: Non-beveled edge.
        5. Material Compliance: ASTM F1700.
           1. Reaction to Fire: ASTM E662, ASTM E648.
           2. Slip Resistance: ASTM D2047: Pass (Dry 0.88).
        6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. CH-KP94 PALE LIMED OAK.
        2. CH-KP96 MID LIMED OAK.
    1. Resilient Tile Flooring: Knight Tile Range Planks by Karndean Designflooring.
       1. Dimensions: 36 by 6 inches (915 by 152 mm).
       2. Wear Layer Thickness: 12 mil (0.3 mm).
       3. Tile Thickness: 0.08 inches (2 mm).
       4. Edge: Non-beveled edge.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.88).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. KP94 PALE LIMED OAK.
        2. KP96 MID LIMED OAK.
        3. KP97 CLASSIC LIMED OAK.
        4. KP98 AGED OAK.
        5. KP99 LIME WASHED OAK.
        6. KP105 WHITE PAINTED PINE.
        7. KP133 NATURAL SCANDI PINE.
        8. KP138 GREY LIMED OAK.
        9. KP141 URBAN SPOTTED GUM.
        10. KP144 WASHED CHARACTER OAK.
        11. KP145 NATURAL CHARACTER OAK.
        12. KP150 SHADOW STUDIO OAK.
        13. KP154 DUTCH LIMED OAK.
        14. KP155 HONEY LIMED OAK.
    1. Resilient Tile Flooring: Knight Tile Range Tiles by Karndean Designflooring.
       1. Dimensions: 12 by 18 inches (305 by 457 mm).
       2. Wear Layer Thickness: 12 mil (0.3 mm).
       3. Tile Thickness: 0.08 inches (2 mm).
       4. Edge: Non-beveled edge.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: D2047: Pass (Dry 0.88).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. ST5-18 SOAPSTONE.
        2. ST12 BATH STONE.
        3. ST13 PORTLAND STONE.
        4. ST14 CUMBRIAN STONE.
        5. ST16 GREY RIVEN SLATE.
        6. ST17 HONED OYSTER SLATE.
        7. ST18 IVORY RIVEN SLATE.
        8. ST24 OLTEN STONE.
        9. ST30 BERN STONE.
        10. ST31 RIVER MARBLE.
    1. Resilient Tile Flooring: Knight Tile Rigid Core Chevron Planks by Karndean Designflooring.
       1. Dimensions: 48 by 9 inches (1219 by 228 mm).
       2. Wear Layer Thickness: 12 mil (0.3 mm).
       3. Tile Thickness: 0.18 inches (4.5 mm).
       4. Edge: Non-beveled edge.
       5. Compliance: ASTM F3261.
       6. Classification, ASTM F1700: Class 3 Type B.
       7. Slip Resistance, ASTM D2047: Pass (Dry 0.89).
       8. Reaction to Fire: ASTM E648-06: Class 1.
       9. Staining Resistance, ASTM F925: Pass.
       10. Light Fastness, ASTM F1515: Less than 8.
       11. Abrasion Resistance, ASTM D4060: 25,000 Cycles.
       12. Dimensional Stability, ISO 23999: Pass.
       13. Acoustic Impact Noise Reduction: ASTM E492-09: IIC68.
       14. Indentation, Residual, ASTM F1914: Pass.
       15. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SCB-CH-KP94 PALE LIMED OAK.
        2. SCB-CH-KP96 MID LIMED OAK.
    1. Resilient Tile Flooring: Knight Tile Rigid Core Planks by Karndean Designflooring.
       1. Dimensions: 36 by 6 inches (915 by 152 mm).
       2. Wear Layer Thickness: 12 mil (0.3 mm).
       3. Tile Thickness: 0.18 inches (4.5 mm).
       4. Edge: Non-beveled edge.
       5. Compliance: ASTM F3261.
       6. Classification, ASTM F1700: Class 3 Type B.
       7. Slip Resistance, ASTM D2047: Pass (Dry 0.89).
       8. Reaction to Fire: ASTM E648-06: Class 1.
       9. Staining Resistance, ASTM F925: Pass.
       10. Light Fastness, ASTM F1515: Less than 8.
       11. Abrasion Resistance, ASTM D4060: 25,000 Cycles.
       12. Dimensional Stability, ISO 23999: Pass.
       13. Acoustic Impact Noise Reduction: ASTM E492-09: IIC69.
       14. Indentation, Residual, ASTM F1914: Pass.
       15. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SCB-KP94-6 PALE LIMED OAK.
        2. SCB-KP96-6 MID LIMED OAK.
        3. SCB-KP97-6 CLASSIC LIMED OAK.
        4. SCB-KP98-6 AGED OAK.
        5. SCB-KP99-6 LIMED WASHED OAK.
        6. SCB-KP105-6 WHITE PAINTED PINE.
        7. SCB-KP133-6 NATURAL SCANDI PINE.
        8. SCB-KP138-6 GREY LIMED OAK.
        9. SCB-KP141-6 URBAN SPOTTED GUM.
        10. SCB-KP144-6 WASHED CHARACTER OAK.
        11. SCB-KP145-6 NATURAL CHARACTER OAK.
        12. SCB-KP150-6 SHADOW STUDIO OAK.
        13. SCB-KP154-6 DUTCH LIMED OAK.
        14. SCB-KP155-6 HONEY LIMED OAK.
    1. Resilient Tile Flooring: Knight Tile Rigid Core Tiles by Karndean Designflooring.
       1. Dimensions: 12 by 18 inches (305 by 457 mm).
       2. Wear Layer Thickness: 12 mil (0.3 mm).
       3. Tile Thickness: 0.18 inches (4.5 mm).
       4. Edge: Micro bevel.
       5. Compliance: ASTM F3261.
       6. Classification, ASTM F1700: Class 3 Type B.
       7. Slip Resistance, ASTM D2047: Pass (Dry 0.89).
       8. Reaction to Fire: ASTM E648-06: Class 1.
       9. Staining Resistance, ASTM F925: Pass.
       10. Light Fastness, ASTM F1515: Less than 8.
       11. Abrasion Resistance, ASTM D4060: 25,000 Cycles.
       12. Dimensional Stability, ISO 23999: Pass.
       13. Acoustic Impact Noise Reduction: ASTM E492-09: IIC69.
       14. Indentation, Residual, ASTM F1914: Pass.
       15. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SCB-ST5-G SOAPSTONE.
        2. SCB-ST12-G BATH STONE.
        3. SCB-ST13-G PORTLAND STONE.
        4. SCB-ST14-G CUMBRIAN STONE.
        5. SCB-ST16-G GREY RIVEN SLATE.
        6. SCB-ST17-G HONED OSYTER SLATE.
        7. SCB-ST18-G IVORY RIVEN SLATE.
        8. SCB-ST24-G OLTEN STONE.
        9. SCB-ST30-G BERN STONE.
        10. SCB-ST31-G RIVER MARBLE.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - VAN GOGH AND VAN GOGH RIGID CORE
     1. Resilient Tile Flooring: Van Gogh Range Planks by Karndean Designflooring.
        1. Dimensions: 48 by 7 inches (1219 by 178 mm).
        2. Wear Layer Thickness: 20 mil (0.5 mm).
        3. Tile Thickness: 1/8 inches (3 mm).
        4. Edge: Micro bevel.
        5. Material Compliance: ASTM F1700.
           1. Reaction to Fire: ASTM E662, ASTM E648.
           2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
        6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. VGW39T ANTIQUE KARRI.
        2. VGW41T MERBAU.
        3. VGW42T JATOBA.
        4. VGW44T LANCEWOOD.
        5. VGW49T RIMU.
        6. VGW53T WELLINGTON OAK.
        7. VGW70T SMOKED OAK.
        8. VGW76T VINTAGE PINE.
        9. VGW81T COUNTRY OAK.
        10. VGW83T FROSTED BIRCH.
        11. VGW85T FRENCH OAK.
        12. VGW86T CLASSIC OAK.
        13. VGW89T EBONY.
        14. VGW91T TAWNY OAK.
        15. VGW93T HESSIAN OAK.
        16. VGW94T HONEY OAK.
        17. VGW99T RECLAIMED REDWOOD.
        18. VGW100T AGED REDWOOD.
        19. VGW115T NATURAL PRIME OAK.
        20. VGW136T BLOND FARMHOUSE OAK.
        21. VGW137T SILVER FARMHOUSE OAK.
        22. VGW138T SMOKED SCHOOL CEDAR.
        23. VGW139T LIGHT COUNTY OAK.
        24. VGW142T NATURAL SCHOOL CEDAR.
        25. VGW143T OHANA KOA.
        26. VGW144T AUBURN SPOTTED GUM.
    1. Resilient Tile Flooring: Van Gogh Rigid Core Planks by Karndean Designflooring.
       1. Dimensions: 48 by 7 inches (1219 by 178 mm).
       2. Wear Layer Thickness: 20 mil (0.5 mm).
       3. Tile Thickness: 0.18 inches (4.5 mm).
       4. Edge: Micro bevel.
       5. Compliance: ASTM F3261.
       6. Classification, ASTM F1700: Class 3 Type B.
       7. Slip Resistance, ASTM D2047: Pass (Dry 0.89).
       8. Reaction to Fire: ASTM E648-06: Class 1.
       9. Staining Resistance, ASTM F925: Pass.
       10. Light Fastness, ASTM F1515: Less than 8.
       11. Abrasion Resistance, ASTM D4060: 20,000 Cycles.
       12. Dimensional Stability, ISO 23999: Pass.
       13. Acoustic Impact Noise Reduction: ASTM E492-09: IIC69.
       14. Indentation, Residual, ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SCB39 ANTIQUE KARRI.
        2. SCB41 MERBAU.
        3. SCB42 JATOBA.
        4. SCB44 LANCEWOOD.
        5. SCB49 RIMU.
        6. SCB53 WELLINGTON OAK.
        7. SCB70 SMOKED OAK.
        8. SCB76 VINTAGE PINE.
        9. SCB81 COUNTRY OAK.
        10. SCB83 FROSTED BIRCH.
        11. SCB85 FRENCH OAK.
        12. SCB86 CLASSIC OAK.
        13. SCB89 EBONY.
        14. SCB91 TAWNY OAK.
        15. SCB93 HESSIAN OAK.
        16. SCB94 HONEY OAK.
        17. SCB99 RECLAIMED REDWOOD.
        18. SCB100 AGED REDWOOD.
        19. SCB115 NATURAL PRIME OAK.
        20. SCB136 BLOND FARMHOUSE OAK.
        21. SCB137 SILVER FARMHOUSE OAK.
        22. SCB138 SMOKED SCHOOL CEDAR.
        23. SCB139 LIGHT COUNTY OAK.
        24. SCB142 NATURAL SCHOOL CEDAR.
        25. SCB143 OHANA KOA.
        26. SCB144 AUBURN SPOTTED GUM.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - KARNDEAN LOOSELAY
     1. Resilient Tile Flooring: Karndean LooseLay Range Planks by Karndean Designflooring.
        1. Dimensions: 41.3 by 9.85 inches (1050 by 250 mm).
        2. Wear Layer Thickness: 20 mil (0.5 mm).
        3. Tile Thickness: 0.18 inches (4.5 mm).
        4. Edge: Non-beveled edge.
        5. Material Compliance: ASTM F1700.
           1. Reaction to Fire: ASTM E662, ASTM E648.
           2. Slip Resistance: ASTM D2047: Pass (Dry 0.92).

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0245 m^2K/W.
      2. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. LLP39 ANTIQUE KARRI.
        2. LLP92 COUNTRY OAK.
        3. LLP94 NEWPORT.
        4. LLP95 ASHLAND.
        5. LLP109 STAMFORD.
        6. LLP111 BOSTON.
        7. LLP112 HARTFORD.
        8. LLP113 CAMBRIDGE.
        9. LLP149 PALMARIA.
        10. LLP154 DANBURY.
        11. LLP157 BRIDGEPORT.
    1. Resilient Tile Flooring: Karndean LooseLay Range Tiles by Karndean Designflooring.
       1. Dimensions: 19.7 by 24 inches (500 by 610 mm).
       2. Wear Layer Thickness: 20 mil (0.5 mm).
       3. Tile Thickness: 0.18 inches (4.5 mm).
       4. Edge: Non-beveled edge.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.92).

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0245 m^2K/W.
      2. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. LLT200 ARIZONA.
        2. LLT201 COLORADO.
        3. LLT202 INDIANA.
        4. LLT206 GEORGIA.
        5. LLT209 CAPRI.
        6. LLT211 VULCANO.
        7. LLT212 DAKOTA.
        8. LLT214 SEATTLE.
        9. LLT217 VERMONT.
        10. LLT218 ONTARIO.
    1. Resilient Tile Flooring: Karndean LooseLay Range Planks by Karndean Designflooring.
       1. Dimensions: 59.1 by 9.85 inches (1500 by 250 mm).
       2. Wear Layer Thickness: 20 mil (0.5 mm).
       3. Tile Thickness: 0.18 inches (4.5 mm).
       4. Edge: Non-beveled edge.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.0245 m^2K/W.
      2. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. LLP301 TWILIGHT OAK.
        2. LLP303 ANTIQUE HEART PINE.
        3. LLP304 WEATHERED HEART PINE.
        4. LLP305 RECLAIMED HEART PINE.
        5. LLP306 PEARL OAK.
        6. LLP307 NEUTRAL OAK.
        7. LLP308 FRENCH GREY OAK.
        8. LLP309 TAUPE OAK.
        9. LLP310 CHAMPAGNE OAK.
        10. LLP315 CHARACTER WALNUT.
        11. LLP317 LEMON SPOTTED GUM.
        12. LLP330 WORN FABRIC OAK.
        13. LLP352 ALPINE OAK.
        14. LLP353 CASHMERE OAK.
        15. LLP354 STERLINK OAK.
        16. LLP355 WHEAT OAK.
        17. LLP356 FIELD OAK.
        18. LLP357 PURE DANISH OAK.
        19. LLP358 NUDE DANISH OAK.
        20. LLP359 GOLDEN DANISH OAK.
        21. LLP360 SHOREBIRD ASH.
        22. LLP361 SWAN BAY ASH.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - ART SELECT RANGE
     1. Resilient Tile Flooring: Art Select Range; Hand Crafted Wood Collection Planks by Karndean Designflooring.
        1. Dimensions: 36 by 6 inches (915 by 152 mm).
        2. Wear Layer Thickness: 30 mil (0.7 mm).
        3. Tile Thickness: 1/8 inches (3 mm).
        4. Edge: Beveled edge, 2.5 mm thick.
        5. Material Compliance: ASTM F1700.
           1. Reaction to Fire: ASTM E662, ASTM E648.
           2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
        6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. EW01 HICKORY PAPRIKA.
        2. EW02 HICKORY PEPPERCORN.
        3. EW03 HICKORY NUTMEG.
    1. Resilient Tile Flooring: Art Select Range; Marble collection Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 18 inches (457.2 by 457.2 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 1/8 inches (3 mm).
       4. Edge: Beveled edge, 2.5 mm thick.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. LM30 IONIC MARBLE.
        2. LM31 CORINTHIAN MARBLE.
        3. LM32 DORIC MARBLE.
    1. Resilient Tile Flooring: Art Select Range; Slate collection Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 24 inches (457 by 610 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 1/8 inches (3 mm).
       4. Edge: Beveled edge, 2.5 mm thick.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. LM49 LAGO QUARTZITE.
        2. LM50 ALPINE QUARTZITE.
        3. LM51 STERLING QUARTZITE.
    1. Resilient Tile Flooring: Art Select Range; Travertine Collection Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 36 inches (457 by 914 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 1/8 inches (3 mm).
       4. Edge: Beveled edge, 4 mm thick.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. LM33 CALACATTA D�ORO.
        2. LM35 PEARL ONYX.
        3. LM36 ROSE ONYX.
        4. LM37 SILK TRAVERTINO.
        5. LM38 CHAMPAGNE TRAVERTINO.
        6. LM39 CALIZA CLASSICO.
        7. LM40 PAVIMENTO CREMA.
        8. LM42 PAVIMENTO BIANCO.
        9. LM43 BREZZA CEPPO.
        10. LM44 SABBIA CEPPO.
        11. LM45 NATURALE CEPPO.
    1. Resilient Tile Flooring: Art Select Range; Planks by Karndean Designflooring.
       1. Dimensions: 48 by 7 inches (1219 by 178 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 1/8 inches (3 mm).
       4. Edge: Beveled edge, 2.5 mm thick.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. RL01 SPRING OAK. (Oak Royale).
        2. RL03 AUTUMN OAK. (Oak Royale).
        3. RL07 SANTINA CHERRY. (Cherry Royale).
        4. RL13 SALON OAK.
        5. RL34 CANVAS OAK.
        6. RL35 DAMASK OAK.
        7. RL36 MERINO OAK.
        8. RL37 TWEED OAK.
        9. RL38 COTTON OAK.
    1. Resilient Tile Flooring: Art Select Range; Planks by Karndean Designflooring.
       1. Dimensions: 56 by 9 inches (1422 by 228 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 1/8 inches (3 mm).
       4. Edge: Beveled edge, 2.5 mm thick.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. EW13 CLASSIC HICKORY.
        2. EW21 RECLAIMED CHESTNUT.
        3. RL21 GLACIER OAK.
        4. RL24 DUNE OAK.
        5. RL26 BASQUE OAK.
        6. RL28 SERRANO OAK.
        7. RL30 DOVE ARTISAN OAK.
        8. RL32 PALE ARTISAN OAK.
        9. RL33 GREY ARTISAN OAK.
    1. Resilient Tile Flooring: Art Select Range; Parquet Collection Planks by Karndean Designflooring.
       1. Dimensions: 28 by 4.5 inches (711 by 114 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 1/8 inches (3 mm).
       4. Edge: Beveled edge, 2.5 mm thick.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SM-RL21-28 GLACIER OAK.
        2. SM-RL26 BASQUE OAK.
        3. SM-RL13 SALON OAK.
        4. SM-RL28 SERRANO OAK.
    1. Resilient Tile Flooring: Art Select Range; Planks by Karndean Designflooring.
       1. Dimensions: 48 by 4.5 inches (1219 by 114 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 1/8 inches (3 mm).
       4. Edge: Beveled edge, 2.5 mm thick.
       5. Material Compliance: ASTM F1700.
          1. Reaction to Fire: ASTM E662, ASTM E648.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.89).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. RL39 CASTLE HILL ASH.
        2. RL41 CANTERBURY ASH.
        3. RL43 FIELDSTONE ASH.
        4. RL44 GOLDEN KENT ASH.
        5. RL45 BELMONT HICKORY.
        6. RL48 NATURAL OAK.
        7. RL49 CANADIAN MAPLE.
        8. RL50 BLENDED OAK.
        9. RL51 LORENZO WARM OAK.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required. Performance and Design Requirements apply to all Resilient Tile Flooring products in this article.

* 1. RESILIENT TILE FLOORING - ART SELECT RANGE RIGID CORE
     1. Performance and Design Requirements:
        1. Locking System: 5G Fold Down installation system.
        2. Surface Treatment: K-Guard+ PU coating.
        3. Classification, ASTM F3261: Pass. Resilient flooring with Rigid Polymeric Core.
        4. Flammability Test, ASTM D2859: Pass.
        5. Staining Resistance, ASTM F925: Pass.
        6. Heat Fastness, ASTM F1514: Pass.
        7. Light Fastness, ASTM F1515: Pass.
        8. Electrostatic Propensity, AATCC 134-1996: 1.7 kV.
        9. Abrasion Resistance, ASTM D4060: Pass. Greater than 50,000 cycles.
        10. Dimensional Stability ISO 23999: Pass. -0.005 percent Avg.
        11. Acoustic Impact Noise Reduction:
            1. ASTM E2179: Delta IIC = 25 dB.
            2. ASTM E492: IIC = 68 dB. 6 inch Concrete Slab w/Drop Ceiling.
            3. ASTM E492: IIC = 72 dB. 6 inch Concrete Slab w/Drop Ceiling + QuietChoice.
        12. Static Load ASTM F970: Pass. 400 psi at 0.005 inches.
        13. Indentation - Residual, ASTM F1914: Pass.
        14. Thickness Swell, NALFA 3.2 Pass. Class 4.
        15. Adhesive: None Required.
        16. Environmental:
            1. FloorScore SCS-EC10.3-2014 v4.0: Indoor air quality certified; Compliant low emitting VOC emissions.
            2. Environmental Product Declaration: Product-specific Type III EPD. Products with external third-party verification.
            3. NSF / ANSI 332: Sustainability Assessment for Resilient Floor Coverings; Silver certified product.
            4. ASSURE CERTIFIED: Conformance with Rigid Core Flooring Standard SCS-0011 V1-0.
            5. ISO 14001 / ISO 9001: Manufactured to quality and environment management systems standards.
        17. Recycling: Suitable.
        18. Phthalate free, CPSC-CH-C1001-09.4: Yes.
     2. Resilient Tile Flooring: Art Select Range; Rigid Core Hand Crafted Wood Collection Planks by Karndean Designflooring.
        1. Dimensions: 36 by 6 inches (915 by 152 mm).
        2. Wear Layer Thickness: 30 mil (0.7 mm).
        3. Tile Thickness: 9/32 inches (7 mm).
        4. Edge: Beveled edge, Standard.
        5. Material Compliance: ASTM 3261.
           1. Reaction to Fire, ASTM E648-06: Class 1.
           2. Slip Resistance: ASTM D2047: Pass (Dry 0.8).
        6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. AKP-EW01 HICKORY PAPRIKA.
        2. AKP-EW02 HICKORY PEPPERCORN.
        3. AKP-EW03 HICKORY NUTMEG.
    1. Resilient Tile Flooring: Art Select Range; Rigid Core Planks by Karndean Designflooring.
       1. Dimensions: 56 by 9 inches (1422 by 228 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 9/32 inches (7 mm).
       4. Edge: Beveled edge, Standard.
       5. Material Compliance: ASTM 3261.
          1. Reaction to Fire, ASTM E648-06: Class 1.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.8).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. AKP-EW13 CLASSIC HICKORY.
        2. AKP-EW21 RECLAIMED CHESTNUT.
        3. AKP-RL21 GLACIER OAK.
        4. AKP-RL24 DUNE OAK.
        5. AKP-RL26 BASQUE OAK.
        6. AKP-RL28 SERRANO OAK.
        7. AKP-RL30 DOVE ARTISAN OAK.
        8. AKP-RL32 PALE ARTISAN OAK.
        9. AKP-RL33 GREY ARTISAN OAK.
    1. Resilient Tile Flooring: Art Select Range; Rigid Core Planks by Karndean Designflooring.
       1. Dimensions: 48 by 7 inches (1220 by 107 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 9/32 inches (7 mm).
       4. Edge: Beveled edge Standard.
       5. Material Compliance: ASTM 3261.
          1. Reaction to Fire, ASTM E648-06: Class 1.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.8).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. AKP-RL01 SPRING OAK. (Oak Royale).
        2. AKP-RL03 AUTUMN OAK. (Oak Royale).
        3. AKP-RL07 SANTINA CHERRY. (Cherry Royale).
        4. AKP-RL13 SALON OAK.
        5. AKP-RL34 CANVAS OAK.
        6. AKP-RL35 DAMASK OAK.
        7. AKP-RL36 MERINO OAK.
        8. AKP-RL37 TWEED OAK.
        9. AKP-RL38 COTTON OAK.
    1. Resilient Tile Flooring: Art Select Range; Rigid Core Parquet Collection Planks by Karndean Designflooring.
       1. Dimensions: 28 by 4.25 inches (711 by 114 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 9/32 inches (7 mm).
       4. Edge: Beveled edge, Standard.
       5. Material Compliance: ASTM 3261.
          1. Reaction to Fire, ASTM E648-06: Class 1.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.8).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. AKP-SM-RL21-28 GLACIER OAK.
        2. AKP-SM-RL26 BASQUE OAK.
        3. AKP-SM-RL13 SALON OAK.
        4. AKP-SM-RL28 SERRANO OAK.
    1. Resilient Tile Flooring: Art Select Range; Rigid Core Planks by Karndean Designflooring.
       1. Dimensions: 48 by 4.25 inches (1220 by 108 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 9/32 inches (7 mm).
       4. Edge: Beveled edge, Standard.
       5. Material Compliance: ASTM 3261.
          1. Reaction to Fire, ASTM E648-06: Class 1.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.8).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. AKP-RL39 CASTLE HILL ASH.
        2. AKP-RL41 CANTERBURY ASH.
        3. AKP-RL43 FIELDSTONE ASH.
        4. AKP-RL44 GOLDEN KENT ASH.
        5. AKP-RL45 BELMONT HICKORY.
        6. AKP-RL48 NATURAL OAK.
        7. AKP-RL49 CANADIAN MAPLE.
        8. AKP-RL50 BLENDED OAK.
        9. AKP-RL51 LORENZO OAK.
    1. Resilient Tile Flooring: Art Select Range; Rigid Core Travertine Collection Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 36 inches (457 by 914 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 9/32 inches (7 mm).
       4. Edge: Beveled edge, Standard.
       5. Material Compliance: ASTM 3261.
          1. Reaction to Fire, ASTM E648-06: Class 1.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.8).
       6. Item Number and Name:
          1. AKT-LM33 CALCATTSA D�ORO.
          2. AKT-LM35 PEARL ONYX.
          3. AKT-LM36 ROSE ONYX.
          4. AKT-LM37 SILK TRAVERTINO.
          5. AKT-LM38 CHAMPAGNE TRAVERTINO.
          6. AKT-LM39 CALIZA CLASSICO.
          7. AKT-LM40 PAVIMENTO CREMA.
          8. AKT-LM42 PAVIMENTO BIANCO.
          9. AKT-LM43 BREZZA CAPPO.
          10. AKT-LM44 SABBIA CEPPO.
          11. AKT-LM45 NATURAL CEPPO.
    2. Resilient Tile Flooring: Art Select Range; Slate collection Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 24 inches (457 by 610 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 9/32 inches (7 mm).
       4. Edge: Beveled edge, Standard.
       5. Material Compliance: ASTM 3261.
          1. Reaction to Fire, ASTM E648-06: Class 1.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.8).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. AKT-LM49 LAGO QUARTZITE.
        2. AKT-LM50 ALPINE QUARTZITE.
        3. AKT-LM51 STERLING QUARTZITE.
    1. Resilient Tile Flooring: Art Select Range; Marble collection Tiles by Karndean Designflooring.
       1. Dimensions: 18 by 18 inches (457.2 by 457.2 mm).
       2. Wear Layer Thickness: 30 mil (0.7 mm).
       3. Tile Thickness: 9/32 inches (7 mm).
       4. Edge: Beveled edge, Standard.
       5. Material Compliance: ASTM 3261.
          1. Reaction to Fire, ASTM E648-06: Class 1.
          2. Slip Resistance: ASTM D2047: Pass (Dry 0.8).
       6. Item Number and Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. AKT-LM30 IONIC MARBLE.
        2. AKT-LM31 CORINTHIAN MARBLE.
        3. AKT-LM32 DORIC MARBLE.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - KORLOK SELECT AND KORLOK RESERVE RANGES
     1. Resilient Tile Flooring: Korlok Select Range Planks by Karndean Designflooring.
        1. Dimensions: 56 by 9 inches (1420 by 225 mm).
        2. Thickness: 1/4 inches (6.5 mm).
        3. Wear Layer: 20 mil (0.5 mm).
        4. Beveled Edge: Micro bevel.
        5. Compliance: ASTM F3261.
        6. Slip Resistance: ASTM D2047.
        7. Reaction to Fire: ASTM E648-06: Class 1.
        8. Staining Resistance: ASTM F925: Pass.
        9. Light Fastness: ASTM F1515: Pass.
        10. Abrasion Resistance: ASTM D4060: 36000 Cycles.
        11. Dimensional Stability: ASTM F2199: Pass.
        12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC68.
        13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.052 m^2K/W.
      2. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. RKP8101 BALTIC WASHED OAK.
        2. RKP8102 WASHED VELVET ASH.
        3. RKP8103 WARM ASH.
        4. RKP8104 WASHED GREY ASH.
        5. RKP8105 TEXAS WHITE ASH.
        6. RKP8107 SMOKED BUTTERNUT.
        7. RKP9108 WASHED BUTTERNUT.
        8. RKP8109 RECLAIMED FRENCH OAK.
        9. RKP8110 ANTIQUE FRENCH OAK.
        10. RKP8111 BALTIC LIMED OAK.
        11. RKP8114 CATHEDRAL OAK.
        12. RKP8116 CANADIAN URBAN OAK.
        13. RKP8122 NATURAL KOA.
        14. RKP8124 KILAUEA KOA.
        15. RKP8126 SMOKED KOA.
        16. RKP8202 OSYTER OAK.
        17. RKP8203 SHADOW OAK.
        18. RKP8206 BARLEY OAK.
        19. RKP8209 SALVAGED BARNWOOD.
        20. RKP8215 WARM BRUSHED OAK.
        21. RKP8217 IVORY BRUSHED OAK.
        22. RKP8236 BALTIC COASTAL OAK.
        23. RKP8237 GLENMORE OAK.
        24. RKP8238 BRAEMAR OAK.
    1. Resilient Tile Flooring: Korlok Select Range Planks by Karndean Designflooring.
       1. Dimensions: 24 by 6 inches (609 by 152 mm).
       2. Thickness: 1/4 inches (6.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F3261.
       6. Slip Resistance: ASTM D2047.
       7. Reaction to Fire: ASTM E648-06: Class 1.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Pass.
       10. Abrasion Resistance: ASTM D4060: 36000 Cycles.
       11. Dimensional Stability: ASTM F2199: Pass.
       12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC68.
       13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.052 m^2K/W.
      2. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SM-RKP8105 TEXAS WHITE ASH.
        2. SM-RKP8116 CANADIAN URBAN OAK.
        3. SM-RKP8209 SALVAGED BARNWOOD.
    1. Resilient Tile Flooring: Korlok Select Stone Range by Karndean Designflooring.
       1. Dimensions: 18 by 24 inches (457 by 610 mm).
       2. Thickness: 1/4 inches (6.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F3261.
       6. Slip Resistance: ASTM D2047.
       7. Reaction to Fire: ASTM E648-06: Class 1.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Pass.
       10. Abrasion Resistance: ASTM D4060: 36000 Cycles.
       11. Dimensional Stability: ASTM F2199: Pass.
       12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC68.
       13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.052 m^2K/W
      2. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. RKT2407 SHADOW LACE.
        2. RKT2408 ALPINE LACE.
        3. RKT3001-G VOLCANIC SLATE.
        4. RKT3002-G ANTIQUE COPPER.
        5. RKT3003-G MOUNTAIN SLATE.
        6. RKT3004-G COASTAL FOG.
        7. RKT3005-G ARTIC MIST.
        8. RKT3006-G BLACK SANDS.
        9. RKT3007-G METRO GREY.
        10. RKT3008-G OXFORD GREY.
        11. RKT3009-G PEBBLE GREY.
        12. RKT3010-G SANDSTORM.
        13. RKT3011-G AGED PARCHMENT.
        14. RKT3012-G PALAZZO MARBLE.
        15. RKT3013-G BRUNELLA MARBLE.
    1. Resilient Tile Flooring: Korlok Select Stone Range by Karndean Designflooring.
       1. Dimensions: 24 by 6 inches (609 by 152 mm).
       2. Thickness: 1/4 inches (6.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F3261.
       6. Slip Resistance: ASTM D2047.
       7. Reaction to Fire: ASTM E648-06: Class 1.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Pass.
       10. Abrasion Resistance: ASTM D4060: 36000 Cycles.
       11. Dimensional Stability: ASTM F2199: Pass.
       12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC68.
       13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.052 m^2K/W.
      2. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. SM-RKT3012-G PALAZZO MARBLE.
        2. SM-RKT3013-G BRUNELLA MARBLE.
    1. Resilient Tile Flooring: Korlok Reserve Range Planks by Karndean Designflooring.
       1. Dimensions: 48 by 7 inches (1219 by 178 mm).
       2. Thickness: 1/4 inches (6.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: Micro bevel.
       5. Compliance: ASTM F3261.
       6. Slip Resistance: ASTM D2047.
       7. Reaction to Fire: ASTM E648-06: Class 1.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Pass.
       10. Abrasion Resistance: ASTM D4060: 20,000 Cycles.
       11. Dimensional Stability: ASTM F2199: Pass.
       12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC68.
       13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Thermal Conductivity: ISO 8302, 0.052 m^2K/W.
      2. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. RCP6531 VINTAGE OREGON OAK.
        2. RCP6532 WEATHERED OAK.
        3. RCP6533 NORTH AMERICAN OAK.
        4. RCP6534 LIMED COASTAL OAK.
        5. RCP6535 AGED SPANISH OAK.
        6. RCP6536 NATURAL OILED OAK.
        7. RCP6539 CHARRED WEATHERED PINE.
        8. RCP6541 GREY OILED OAK.
        9. RCP6543 MARRON ELM.
        10. RCP6544 GHOST ELM.
        11. RCP6545 SMOKED AMERICAN MAPLE.
        12. RCP6546 MILLSTONE SYCAMORE.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - KTRADE GLUEDOWN RANGE
     1. Resilient Tile Flooring: KTrade Gluedown Planks by Karndean Designflooring.
        1. Dimensions: 48 by 7 inches (1219 by 178 mm).
        2. Thickness: 0.08 inches (2 mm).
        3. Wear Layer: 12 mil (0.3 mm).
        4. Beveled Edge: No.
        5. Compliance: ASTM F1700.
        6. Slip Resistance: ASTM D2047.
        7. Reaction to Fire: ASTM E648-06: Class 1, ASTM E662.
        8. Staining Resistance: ASTM F925: Pass.
        9. Light Fastness: ASTM F1515: Pass.
        10. Abrasion Resistance: ASTM D3884: 42000 Cycles.
        11. Dimensional Stability: ASTM F2199: Pass.
        12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC43.
        13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. PVP120 CHARLESTON.
        2. PVP121 ATHENS.
        3. PVP123 NAPLES.
        4. PVP128 CLEMSON.
        5. PVP142 SICILIA.
        6. PVP145 TORCELLO.
        7. PVP147 LAMPIONE.
        8. PVP148 LINOSA.
        9. PVP150 LEVANZO.
        10. PVP151 VIVARA.
    1. Resilient Tile Flooring: KTrade Gluedown Planks by Karndean Designflooring.
       1. Dimensions: 48 by 7 inches (1219 by 178 mm).
       2. Thickness: 0.2 inches (2.5 mm).
       3. Wear Layer: 20 mil (0.5 mm).
       4. Beveled Edge: No.
       5. Compliance: ASTM F1700.
       6. Slip Resistance: ASTM D2047.
       7. Reaction to Fire: ASTM E648-06: Class 1, ASTM E662.
       8. Staining Resistance: ASTM F925: Pass.
       9. Light Fastness: ASTM F1515: Pass.
       10. Abrasion Resistance: ASTM D3884: 42000 Cycles.
       11. Dimensional Stability: ASTM F2199: Pass.
       12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC43.
       13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. PVP5120 CHARLESTON.
        2. PVP5121 ATHENS.
        3. PVP5123 NAPLES.
        4. PVP5128 CLEMSON.
        5. PVP5142 SICILIA.
        6. PVP5145 TORCELLO.
        7. PVP5147 LAMPIONE.
        8. PVP5148 LINOSA.
        9. PVP5150 LEVANZO.
        10. PVP5151 VIVARA.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - KTRADE LOOSELAY RANGE
     1. Resilient Tile Flooring: KTrade LooseLay Planks by Karndean Designflooring.
        1. Dimensions: 41.3 by 9.85 inches (1050 by 250 mm).
        2. Thickness: 0.18 inches (4.5 mm).
        3. Wear Layer: 20 mil (0.5 mm).
        4. Beveled Edge: No.
        5. Compliance: ASTM F1700.
        6. Slip Resistance: ASTM D2047.
        7. Reaction to Fire: ASTM E648-06: Class 1, ASTM E662.
        8. Staining Resistance: ASTM F925: Pass.
        9. Light Fastness: ASTM F1515: Pass.
        10. Abrasion Resistance: ASTM D3884: 113000 Cycles.
        11. Dimensional Stability: ASTM F2199: Pass.
        12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC56.
        13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. LLP120 CHARLESTON.
        2. LLP121 ATHENS.
        3. LLP123 NAPLES.
        4. LLP128 CLEMSON.
        5. LLP142 SICILIA.
        6. LLP145 TORCELLO.
        7. LLP147 LAMPIONE.
        8. LLP148 LINOSA.
        9. LLP150 LEVANZO.
        10. LLP151 VIVARA.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete resilient tile flooring options not required.

* 1. RESILIENT TILE FLOORING - KTRADE RIGID CORE RANGE
     1. Resilient Tile Flooring: KTrade Rigid Core Planks by Karndean Designflooring.
        1. Dimensions: 48 by 7 inches (1219 by 178 mm).
        2. Thickness: 0.18 inches (4.5 mm).
        3. Wear Layer: 12 mil (0.3 mm).
        4. Beveled Edge: No.
        5. Compliance: ASTM F1700.
        6. Slip Resistance: ASTM D2047
        7. Reaction to Fire: ASTM E648-06: Class 1, ASTM E662.
        8. Staining Resistance: ASTM F925: Pass.
        9. Light Fastness: ASTM F1515: Pass.
        10. Abrasion Resistance: ASTM D3884: 25,000 Cycles.
        11. Dimensional Stability: ASTM F2199: Pass.
        12. Acoustic Impact Noise Reduction: ASTM E492-09: IIC56.
        13. Indentation, Residual: ASTM F1914: Pass.

\*\* NOTE TO SPECIFIER \*\* Suitable for underfloor heating.

* + - 1. Item Number, Name:

\*\* NOTE TO SPECIFIER \*\* Delete item numbers and names not required.

* + - * 1. PVP120-SCB CHARLESTON.
        2. PVP121-SCB ATHENS.
        3. PVP123-SCB NAPLES.
        4. PVP128-SCB CLEMSON.
        5. PVP142-SCB SICILIA.
        6. PVP145-SCB TORCELLO.
        7. PVP147-SCB LAMPIONE.
        8. PVP148-SCB LINOSA.
        9. PVP150-SCB LEVANZO.
        10. PVP151-SCB VIVARA.
  1. ACCESSORIES

\*\* NOTE TO SPECIFIER \*\* Delete if application does not include Karndean Borders and/or design strips.

* + 1. Karndean Borders and Design Strips: Location, quantity, type, style, and configuration as indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete if floor care kit not required.

* + 1. Karndean Floor Care Kit with cleaning and maintenance products in quantities appropriate to size and scope of resilient flooring application are available but not required.
    2. Adhesive: Manufacturer's recommended adhesive as follows.

\*\* NOTE TO SPECIFIER \*\* Karndean Epoxy is a 2-part epoxy adhesive for moisture prone areas. Epoxy resin is suitable for areas with extreme temperature variations. Moisture shall be less than 90 percent RH or 8 lbs MVER. 45 minutes working time. Recommended for 3 seasons rooms, over metal substrates, and epoxy coated floors. Delete if not required.

* + - 1. Karndean Epoxy adhesive.

\*\* NOTE TO SPECIFIER \*\* If moisture is not within the manufacturer's specifications, a moisture mitigation system shall be used to correct the problem. Delete if not required.

* + - * 1. Moisture readings higher than approved by the adhesive shall use a moisture mitigation system.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Karndean DrySet Roll-on Adhesive.

\*\* NOTE TO SPECIFIER \*\* If moisture is not within the manufacturer's specifications, a sealer can be used to correct the problem. Delete if not required.

* + - * 1. Moisture readings higher than approved by the adhesive shall use a moisture mitigation system.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Karndean K-Spray Spray Adhesive.

\*\* NOTE TO SPECIFIER \*\* If moisture is not within the manufacturer's specifications, a sealer can be used to correct the problem. Delete if not required.

* + - * 1. Moisture readings higher than approved by the adhesive shall use a moisture mitigation system.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Karndean K99 HM.

\*\* NOTE TO SPECIFIER \*\* If moisture is not within the manufacturer's specifications, a sealer can be used to correct the problem. Delete if not required.

* + - * 1. Moisture readings higher than approved by the adhesive shall use a moisture mitigation system.

\*\* NOTE TO SPECIFIER \*\* Coordinate with Division 1 sections Unit Prices, Allowances. Depending on application and substrate condition, scope of work for substrate preparation can vary greatly. Manufacturer's recommended substrate tolerances ensure high quality finish appearance. Delete adhesive types not required.

* + 1. Portland based cementitious base leveler or patch. Gypsum based is not acceptable unless properly prepared.

\*\* NOTE TO SPECIFIER \*\* Delete if application does require moisture barrier membrane.

* 1. MOISTURE BARRIER MEMBRANE
     1. Moisture Barrier Membrane:

\*\* NOTE TO SPECIFIER \*\* KOVARA 95 is a moisture barrier membrane designed to be laid down above concrete floor slabs and below floor coverings to protect these materials, as well as their adhesives, from any staining, warping, or mold that may result from water vapor emissions and alkaline salts infiltrating through the concrete slab up to 95 percent relative humidity. Delete if not required.

* + - 1. KOVARA 95 as manufactured by GCP Applied Technologies.
         1. Material: Three-layer composite construction of a HDPE bottom layer, glass mat middle layer, and gray mineral top layer.
         2. Thickness: 0.024 inches (0.61 mm).
         3. Resistant to heavy rolling loads.
         4. No VOC content.
         5. Does not support mold or mildew growth.
         6. Provides resistance to 95 percent relative humidity.
         7. Tapes: As recommended by Manufacturer.

\*\* NOTE TO SPECIFIER \*\* KOVARA MBX is a moisture barrier membrane designed to be laid down above concrete floor slabs and below floor coverings to protect these materials, as well as their adhesives, from any staining, warping, or mold that may result from water vapor emissions and alkaline salts infiltrating through the concrete slab up to 99.5 percent relative humidity. Delete if not required.

* + - 1. KOVARA MBX as manufactured by GCP Applied Technologies.
         1. Material: Three-layer composite construction of a HDPE bottom layer, glass mat middle layer, and dark blue mineral top layer.
         2. Thickness: 0.028 inches (0.71 mm).
         3. Resistant to heavy rolling loads.
         4. No VOC content.
         5. Does not support mold or mildew growth.
         6. Provides resistance to 99.5 percent relative humidity.
         7. Tapes: As recommended by Manufacturer.

\*\* NOTE TO SPECIFIER \*\* QuietChoice is a Noise Reduction Underlayment engineered to reduce sound transmission within multi-level structures. Delete if application does not require noise reduction underlayment.

* 1. NOISE REDUCTION UNDERLAYMENT
     1. Noise Reduction Underlayment: QuietChoice Acoustic Underlayment.
        1. Material Composition: Frothed polyurethane foam.
        2. Thickness: 0.055 inches (1.4 mm).
        3. Sound Rating with 6 inch (152 mm) concrete slab, drop ceiling, and 5 mm (0.20 inch) LVT:
           1. Impact Isolation Class (IIC): 71.
           2. Delta IIC: 25.

1. EXECUTION
   1. EXAMINATION
      1. Inspect floor to be installed immediately upon arriving at job site; perform a moisture test.
      2. Do not begin installation until substrates have been properly prepared.
      3. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
      4. The installation of the resilient flooring shall not begin until the work of all other trades has been completed, particularly wet and overhead trades.
      5. Areas to receive flooring shall be adequately lit during all phases of the installation process.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Using Portland based cementitious base leveler or patch fill and cover all seams, nail heads, voids, cracks, and expansion joints. Achieve smooth, even, firmly attached substrate for best finish results. Gypsum based underlayment not acceptable with Karndean Luxury Vinyl Flooring unless it is first properly prepared.
         1. Encapsulate any gypsum with a premium latex primer/sealer recommended by gypsum manufacturer.
         2. Cement slabs can be floated or repaired using Portland cement based compound. Follow patch manufacturers' instructions.
         3. Once substrate flatness is achieved, 3/16 inch (5 mm) in 10 feet (mm in 3 m), continue with the next step.

\*\* NOTE TO SPECIFIER \*\* Delete if substrate is within manufacturer's tolerances for moisture and sealer is not required.

* + 1. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

\*\* NOTE TO SPECIFIER \*\* Delete if concrete substrates not required.

* + 1. Concrete Substrates: The Contractor shall verify to the Owner and installer a minimum of 30 days prior to the scheduled resilient flooring installation the following substrate conditions. All substrate testing shall be documented and submitted to the Architect and Owner before commencement of the flooring installation.
       1. Verify that substrates are dry, free of debris, and that all surfaces have properly cured.
       2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
       3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
       4. Moisture Testing: Perform ASTM 1869 Calcium Chloride or ASTM 2170 In-Situ RH test and record results. Choose proper adhesive or moisture mitigation systems to meet manufacturers' specifications for moisture content. Proceed with installation only after substrates meet specifications.
  1. INSTALLING RESILIENT TILES AND PLANKS
     1. General:
        1. Karndean does not mandate any one brand of resilient flooring underlayment. Permanent HVAC system shall be turned on and set to a minimum of 65 degrees F (20 degrees C) for a minimum of 48 hours prior to, during and 48 hours after installation.
        2. All products shall be allowed to acclimate at least 24 hours before installation. This means product shall be placed in the same room as the install that is taking place and removed from its factory packaging.
        3. Material shall be visually inspected prior to installation.
        4. Ensure that all recommendations for sub-floor and jobsite conditions are met prior to beginning the installation. Once the installation is started, Contractor and installer have accepted those conditions.
        5. Install in accordance with manufacturer's installation instructions for each product type and application specified.
     2. Layout and Installation:

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if not specifying plank shaped simulated wood resilient tile flooring.

* + - 1. Position planks so the end seams are no closer than the width of the plank being installed. Maintain this approach to staggering the planks throughout the entire installation while keeping a random appearance.
      2. Center tiles or planks in rooms and hallways so borders are not less than half a tile or plank when possible.
      3. Cut edges shall always be installed against a wall.
      4. Install using tile and plank installation techniques recommended by manufacturer.
      5. Install tiles, planks, borders and design strips in locations and configurations indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* A moisture test is required over any concrete substrate. Karndean LooseLay product can be installed in the interior of any building without adhesive so long as the walls are less than 13 feet (3962 mm) long and the sub floor has been prepared to the standard as stated in Subfloor Preparation. Installations with walls over 13 feet (3962 mm) in length require a 4 inch (100 mm) perimeter band of adhesive. When installing Karndean LooseLay, flooring should be net fit to walls and other permanent vertical structures. There is no need to allow gaps around the vertical structures or at transition areas for expansion and contraction. In high traffic transition areas, please follow the instructions below as they relate to extreme conditions.

* + 1. Product Application:
       1. Install in accordance with adhesive recommendations on label or data sheet.
       2. Refer to manufacturer's literature for selection criteria for applicator, type.
       3. Using proper applicator, apply adhesive in accordance with label on adhesive.
       4. For LooseLay installations only, spread a 4 inch (100 mm) wide band of adhesive around the perimeter of the area designated as an extreme condition area. An additional 4 inch (100 mm) band shall be spread at approximately 10 foot (3 m) intervals, forming a grid pattern.
       5. For transitional areas, from LooseLay to another floor covering of a different height, a 4 inch (100 mm) band of adhesive should be spread across the length of the transition.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraphs if Korlok products are not required.

* + - 1. Additional requirements for Korlok Products:
         1. Comply with manufacturer's instruction sheets included in material packaging.
         2. Install as "Floating Floor" assembly only. Use of adhesives is not recommended.
         3. Clean, stable, and dry subfloors are required. Concrete subfloors must be moisture tested and any above 75 percent RH must have a DPM, damp proof membrane, or moisture mitigation installed.
         4. Confirm floors are flat to within 3/16 inch (5 mm) in 10 feet (2 mm in 3 m).
         5. Install with 3/16 inch (5 mm) expansion at walls and other vertical abutments.
  1. CLEANING
     1. Wipe off any adhesive on floor as installation proceeds. Wait 48 hours before applying the cleaning and maintenance products.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if not specifying plank shaped simulated wood resilient tile flooring.

* + 1. Prior to installation of permanent fixtures or furniture, remove all dirt, debris, or residual adhesive and clean the floor. If desired, a protective covering may be applied at this time. Specific products and instructions are available from the manufacturer.
  1. PROTECTION
     1. Protect installed products until completion of project.
     2. Touch-up, repair or replace damaged products before Substantial Completion.
  2. MAINTENANCE
     1. Comply with manufacturer's instructions for proper cleaning and maintenance of the products.

END OF SECTION