SECTION 09 05 71

ACOUSTIC UNDERLAYMENTS

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\*\* NOTE TO SPECIFIER \*\* Dura-Undercushions; acoustic underlayments.
This section is based on the products of Dura-Undercushions, which is located at:
8525 Delmeade Rd.
Montreal, QC, Canada H4T 1M1
Toll Free Tel: 800-295-4126
Tel: 514-737-6561
Fax: 514-342-7940
Email: [request info (info@duraundercushions.com)](https://arcat.com/rfi?action=email&company=Dura-Undercushions&message=RE%253A%2520Spec%2520Question%2520(09057dul)%253A%2520&coid=53305&spec=09057dul&rep=&fax=514-342-7940)
Web: <https://duracushion.com>
 [ [Click Here](https://arcat.com/company/dura-undercushions-53305) ] for additional information.
Pioneers in underlayment acoustics. Our underlayments are made from 100% recycled tire rubber, with no filler. This guarantees that the acoustical value of the installation will remain the same for its entire life and this is what distinguishes us from other companies. The variety of products that we offer have all been tested and resulted in having the highest acoustical ratings on the market.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Acoustic underlayments.
			1. DURA-SON.
			2. DURA-SON MB.
			3. DURACOUSTIC.
			4. DURAQUIET.
			5. DURAPAD.
		2. Carpet cushions.
			1. PROTECTOR.
			2. DURACUSHION.
			3. DURALUX COMFORT.
			4. DURALUX GRIP.
			5. SUPER DURA.
	1. RELATED SECTIONS

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

* + 1. Section 03 35 19 - Colored Concrete Finishing.
		2. Section 03 30 00 - Cast-in-Place Concrete.
		3. Division 09 - Adhered Flooring Sections.
	1. REFERENCES

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

* + 1. ASTM International (ASTM):
			1. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
			2. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
			3. ASTM E492 - Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine.
			4. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
			5. ASTM E1007 - Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures.
			6. ASTM D1055 - Standard Specification for Flexible Cellular Rubber Chemically Blown
			7. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's data sheets on each product to be used.
			2. Preparation instructions and recommendations.
			3. Storage and handling requirements and recommendations.
			4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
		2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
		2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
		3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

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

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
			1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
			2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
			3. Retain mock-up during construction as a standard for comparison with completed work.
			4. Do not alter or remove mock-up until work is completed or removal is authorized.
	1. PRE-INSTALLATION CONFERENCE
		1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
		2. Protect from damage due to weather, excessive temperature, and construction operations.
	3. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
	4. WARRANTY
		1. Manufacturer's standard limited warranty unless indicated otherwise.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Dura-Undercushions, which is located at:
		8525 Delmeade Rd.
		Montreal, QC, Canada H4T 1M1
		Toll Free Tel: 800-295-4126
		Tel: 514-737-6561
		Fax: 514-342-7940
		Email: [request info (info@duraundercushions.com)](https://arcat.com/rfi?action=email&company=Dura-Undercushions&message=RE%253A%2520Spec%2520Question%2520(09057dul)%253A%2520&coid=53305&spec=09057dul&rep=&fax=514-342-7940);Web: <https://duracushion.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 not required or delete basis of design options not required.

* 1. ACOUSTIC UNDERLAYMENT

\*\* NOTE TO SPECIFIER \*\* Ideal for condominiums, hotels, commercial spaces, and private residences. On an 8 inch (203 mm) concrete slab, the FIIC is 69 with no suspended ceiling. Delete if not required.

* + 1. Basis of Design: DURA-SON 3.5 mm High Performance Acoustic Underlayment as manufactured by Dura Undercushions Ltd. A high performance acoustic underlayment for laminate and engineered hardwood floors.
			1. Thickness: 1/8 inch (3.5 mm).
			2. "R" Value: 0.32.
			3. Mass: 40 oz per sq yd (1.356 kg per sq m).
			4. Density: 22 lbs per cu ft (352.4 kg per cu m).
			5. Tensile: 214 N per 5 cm.
			6. Content: Minimum 95 percent recycled rubber bonded with synthetic rubber.
			7. Roll Size: 24 sq yd (20 sq m).
			8. Roll Weight: 60 lbs (27.2kg).
			9. Roll Width: 54 inches (1372 mm).
			10. Roll Length: 48 ft (4.63 m).
			11. Roll Diameter: 10 inches (254 mm).
			12. Coverage: 216 sq ft (20.1 sq m).
			13. Acoustical Value: IIC 74 per ASTM E90 & E492 - Impact Sound Transmission with a suspended ceiling.
			14. Moisture Protection: N/A.
			15. Water Vapor Transmission Rate: N/A.
			16. Green Quality: CRI Green Label Plus approved.
			17. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			18. Radiant Heated Floors: Suitable for radiant heated floor.
			19. Flammability per ASTM D2859: Passes the Pill Test.

\*\* NOTE TO SPECIFIER \*\* Ideal for your floating installations in condominiums, hotels, commercial spaces, and private residences. On an 8 inch (203 mm) concrete slab, the FIIC is 69 with no suspended ceiling. Delete if not required.

* + 1. Basis of Design: DURA-SON 3.5 mm MB High Performance Acoustic Underlayment as manufactured by Dura Undercushions Ltd. acoustic underlayment with vapor barrier for laminate and engineered wood floors. Ideal for floating installations in condominiums, hotels, commercial spaces, and private residences.
			1. Thickness: 1/8 inch (3.5 mm).
			2. "R" Value: 0.32.
			3. Mass: 40 oz per sq yd (1.356 kg per sq m).
			4. Density: 22 lbs per cu ft (352.4 kg per cu m).
			5. Tensile: 214 N per 5 cm.
			6. Content: Minimum 95 percent recycled rubber bonded with synthetic rubber.
			7. Roll Size: 24 sq yd (20 sq m).
			8. Roll Weight: 60 lbs (27.2kg).
			9. Roll Width: 54 inches (1372 mm).
			10. Roll Length: 48 ft (4.63 m).
			11. Roll Diameter: 10 inches (254 mm).
			12. Coverage: 216 sq ft (20.1 sq m).
			13. Acoustical Value: IIC 74 per ASTM E90 & E492 - Impact Sound Transmission with a suspended ceiling.
			14. Moisture Protection: 3 mil Polyethylene.
			15. Water Vapor Transmission Rate per ASTM E96: 0.0009 grams per hour per sq ft (0.010 grams per hour per sq m).
			16. Green Quality: CRI Green Label Plus approved.
			17. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			18. Radiant Heated Floors: Suitable for radiant heated floor.
			19. Flammability per ASTM D2859: Passes the Pill Test.

\*\* NOTE TO SPECIFIER \*\* Recommended for the transformation of industrial buildings into apartments, condominiums, and other residential spaces. Delete if not required.

* + 1. Basis of Design: DURACOUSTIC 8 mm High Performance Acoustic Underlayment as manufactured by Dura Undercushions Ltd. A simple and effective solution to create an acoustics system for apartment buildings such as condominiums, hotels, commercial spaces, and private residences.
			1. Thickness: 5/16 inches (8 mm).
			2. "R" value: 0.52.
			3. Mass: 87 ounces per sq yd (2950 grams per sq m).
			4. Density: 22 lbs per cu ft (354.4 kg per cu m).
			5. Tensile: 214 N per 5 cm.
			6. Content: Minimum 95 percent recycled rubber bonded with synthetic rubber.
			7. Roll Size: 12 sq yd (10 sq m).
			8. Roll Weight: 65 lbs (29.5 kg).
			9. Roll Width: 54 inches (1372 mm).
			10. Roll Length: 24 ft (7.3 m).
			11. Roll Diameter: 11 inches (279 mm).
			12. Coverage: 108 sq ft (10.0 sq m).
			13. Acoustical Value: IIC 92 / ASTM E90 & E492 - Impact Sound Transmission with a suspended ceiling.
			14. Moisture Protection: N/A.
			15. Water Vapor Transmission Rate: N/A.
			16. Green Quality: CRI Green Label Plus approved.
			17. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			18. Radiant Heated Floors: Suitable for radiant heated floor.
			19. Flammability per ASTM D2859: Passes the Pill Test.

\*\* NOTE TO SPECIFIER \*\* Offers very high acoustic performance on an 8 inch (203 mm) concrete slab, the FIIC is 53 without suspended ceiling. Delete if not required.

* + 1. Basis of Design: DURAQUIET 3 mm High Performance Acoustic Underlayment as manufactured by Dura Undercushions Ltd. A strong, tear resistant underlayment to be used for superior sound control for condominiums, hotels, commercial spaces, and private residences. Acoustic and Antifracture Underlayment for Tile, Ceramic, Natural Stone, Carpet Tile, and Vinyl floors. Residential and Light Commercial.
			1. Thickness: 1/8 inch (3 mm).
			2. "R" value: 0.2.
			3. Mass: 66 oz per sq yd (2.238 kg per sq m).
			4. Density: 46 lbs per cu ft (352.4 kg per cu m).
			5. Tensile: N/A.
			6. Content: Minimum 95 percent recycled rubber.
			7. Roll Size: 16.67 sq yd (13.94 sq m).
			8. Roll Weight: 69 lbs (31.3 kg).
			9. Roll Width: 60 inches (1524 mm).
			10. Roll Length: 30 ft (9.144 m).
			11. Roll Diameter: 8 inches (203 mm).
			12. Coverage: 150 sq ft (13.94 sq m).
			13. Acoustical Value: IIC 74 / ASTM E90 & E492 - Impact Sound Transmission with a suspended ceiling.
			14. Moisture Protection: N/A.
			15. Water Vapor Transmission Rate: N/A.
			16. Green Quality: CRI Green Label Plus approved.
			17. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			18. Radiant Heated Floors: Suitable for radiant heated floor.
			19. Flammability per ASTM D2859: Passes the Pill Test.

\*\* NOTE TO SPECIFIER \*\* Offers excellent acoustic performance. On an 8 inch (203 mm) concrete slab, the IIC is 72. Delete if not required.

* + 1. Basis of Design: DURAPAD 2 mm High Performance Acoustic Underlayment as manufactured by Dura Undercushions Ltd. A durable underlayment designed to provide sound attenuation and underfoot comfort beneath carpet tile, luxury vinyl tile (LVT), and luxury vinyl planks (LVP). Suitable for use in residential and commercial applications including condominiums, hotels, and office spaces.
			1. Thickness: 5/64 inch (2 mm).
			2. Mass: 19.20 oz per sq yd (0.65 kg per sq m).
			3. Density: 21.90 lbs per cu ft (350.80 kg per cu m).
			4. Tensile: 214 N per 5 cm.
			5. Content: Minimum 95 percent recycled rubber.
			6. Roll size: 33.33 sq yd (27.87 sq m).
			7. Roll Weight: 40 lbs (18.1 kg).
			8. Roll Width: 54 inches (1371.6 mm).
			9. Roll Length: 66.67 ft (20.32 m).
			10. Roll Diameter: 8 inches (203.2 mm).
			11. Coverage: 300 sq ft (27.87 sq m).
			12. Acoustical Value: IIC 72 / ASTM E90 & E492 - Impact Sound Transmission.
			13. Moisture Protection: N/A.
			14. Water Vapor Transmission Rate: N/A.
			15. Green Quality: CRI Green Label Plus approved.
			16. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			17. Radiant Heated Floors: Suitable for radiant heated floor.
	1. CARPET CUSHIONS

\*\* NOTE TO SPECIFIER \*\* Ideal for hotels, commercial spaces, condominiums, and private residences. On an 8 inch (203 mm) concrete slab, the FIIC is 73 with no suspended ceiling. Delete if not required.

* + 1. Basis of Design: PROTECTOR 5 mm High Performance Acoustic Underlayment as manufactured by Dura Undercushions Ltd. A high quality commercial and residential carpet cushion made for high traffic areas. Heavy Commercial Carpet Cushion Class 1, 2, and 3.
			1. Thickness: 3/16 inches (5 mm).
			2. "R" value: 0.46.
			3. Mass: 54 oz per sq yd (1831 grams per sq m).
			4. Density: 22 lbs per cu ft (352.4 kg per cu m).
			5. Tensile: 214 N per 5 cm.
			6. Content: Minimum 95 percent recycled rubber bonded with synthetic rubber.
			7. Roll Size: 20 sq yd (16.7 sq m).
			8. Roll Weight: 68 lbs(30.8 kg).
			9. Roll Width: 54 inches (1372 mm).
			10. Roll Length: 40 ft (12.132 m).
			11. Roll Diameter: 11 inches (279 mm).
			12. Coverage: 180 sq ft (16.7 sq m).
			13. Acoustical Value: IIC 81 / ASTM E90 & E492 - Impact Sound Transmission with a carpet.
			14. Moisture Protection: N/A.
			15. Water Vapor Transmission Rate: N/A.
			16. Green Quality: CRI Green Label Plus approved.
			17. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			18. Radiant Heated Floors: Suitable for radiant heated floor.
			19. Flammability per ASTM D2859 Class 1: Passes the Pill Test.
				1. ASTM E648 Radiant Panel Test as an assembly with a Class 1 commercial carpet.

\*\* NOTE TO SPECIFIER \*\* Ideal for hotels, commercial spaces, condominiums, and private residences. On an 8 inch (203 mm) concrete slab, the FIIC is 76 with no suspended ceiling. Delete if not required.

* + 1. Basis of Design: DURACUSHION 6mm High Performance Acoustic Underlayment as manufactured by Dura Undercushions Ltd. a high quality commercial and residential carpet cushion made for high traffic areas. Heavy Commercial Carpet Cushion Class 1, 2, and 3.
			1. Thickness: 1/4 inch (6 mm).
			2. "R" value: 0.52.
			3. Mass: 64 oz per sq yd (2.170 kg per sq m).
			4. Density: 22 lbs per cu ft (352.4 kg per cu m).
			5. Tensile: 214 N per 5 cm.
			6. Content: Minimum 95 percent recycled rubber bonded with synthetic rubber.
			7. Roll Size: 18 sq yd (15 sq m).
			8. Roll Weight: 72 lbs (32.7 kg).
			9. Roll Width: 54 inches (1372 mm).
			10. Roll Length: 36 ft (10.973 m).
			11. Roll Diameter: 11 inches (279 mm).
			12. Coverage: 162 sq ft (15 sq m).
			13. Acoustical Value: IIC 86 / ASTM E90 & E492 - Impact Sound Transmission with a carpet and a suspended ceiling.
			14. Moisture Protection: N/A.
			15. Water Vapor Transmission Rate: N/A.
			16. Green Quality: CRI Green Label Plus approved.
			17. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			18. Radiant Heated Floors: Suitable for radiant heated floor.
			19. Flammability per ASTM D2859 Class 1: Passes the Pill Test.
				1. ASTM E648 Radiant Panel Test as an assembly with a Class 1 commercial carpet.

\*\* NOTE TO SPECIFIER \*\* Ideal for hotels, commercial spaces, condominiums, and private residences. It is highly recommended for use as an underlay with your high-end area rugs. On an 8 inch (203 mm) concrete slab, the FIIC is 77 with no suspended ceiling. Delete if not required.

* + 1. Basis of Design: DURALUX COMFORT 7 mm High Performance Acoustic Underlayment as manufactured by Dura Undercushions Ltd. a high quality commercial and residential carpet cushion with a jute backing. Heavy Commercial Carpet Cushion Class 1, 2, and 3.
			1. Thickness: 9/32 inches (7 mm).
			2. "R" value: 0.58.
			3. Mass: 74 oz per sq yd (2.509 kg per sq m).
			4. Density: 22 lbs per cu ft (352.4 kg per cu m).
			5. Tensile: 200 N per 5 cm.
			6. Content: Minimum 95 percent recycled rubber bonded with synthetic rubber.
			7. Roll Size: 15 sq yd (12.5 sq m).
			8. Roll Weight: 69 lbs (31.3 kg).
			9. Roll Width: 54 inches (1372 mm).
			10. Roll Length: 30 ft (9.144 m).
			11. Roll Diameter: 11 inches (279 mm).
			12. Coverage: 135 sq ft (12.5 sq m).
			13. Acoustical Value: IIC 85 / ASTM E90 & E492 - Impact Sound Transmission with a carpet and a suspended ceiling.
			14. Moisture Protection: N/A.
			15. Water Vapor Transmission Rate: N/A.
			16. Green Quality: CRI Green Label Plus approved.
			17. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			18. Radiant Heated Floors: Suitable for radiant heated floor.
			19. Flammability per ASTM D2859 Class 1: Passes the Pill Test.
				1. ASTM E648 Radiant Panel Test as an assembly with a Class 1 commercial carpet.

\*\* NOTE TO SPECIFIER \*\* A preferred choice in hallways, entryways, and door clearance areas where rugs need to stay firmly in place. Delete if not required.

* + 1. Basis of Design: DURALUX GRIP 3 mm Non-Slip Rug Pad as manufactured by Dura Undercushions Ltd. A low-profile, slip-resistant underlayment with a jute backing, engineered for rug stability and traction in high-traffic residential and commercial spaces. Rug Underlayment for Entryways, Hallways, and Door Clearance Areas.
			1. Thickness: 9/64 inches (3 mm).
			2. Mass: 34 oz per sq yd (1.24 kg per sq m).
			3. Density: 22 lbs per cu ft (352 kg per cu m).
			4. Tensile: 200 N per 5 cm.
			5. Content: Minimum 95 percent recycled rubber.
			6. Roll size: 24 sq yd (20.06 sq m).
			7. Roll Weight: 55 lbs (25 kg).
			8. Roll Width: 54 inches (1371.6 mm).
			9. Roll Length: 48 ft (14.63 m).
			10. Roll Diameter: 10 inches (254 mm).
			11. Coverage: 216 sq ft (20 sq m).

\*\* NOTE TO SPECIFIER \*\* The acoustical value is a preliminary rating based on DuraPad 2mm. Final results pending ongoing product testing.

* + - 1. Acoustical Value: IIC 70 / ASTM E90 & E492 - Impact Sound Transmission.
			2. Moisture Protection: N/A.
			3. Water Vapor Transmission Rate: N/A.
			4. Green Quality: CRI Green Label Plus approved.
			5. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			6. Radiant Heated Floors: Suitable for radiant heated floor.

\*\* NOTE TO SPECIFIER \*\* For luxury apartments, bedrooms, and home theaters. On an 8 inch (203 mm) concrete slab, the FIIC is 78 with no suspended ceiling. Delete if not required.

* + 1. Basis of Design:SUPER DURA 10 mmHigh quality residential carpet cushion as manufactured by Dura Undercushions Ltd. a product offering a strong thickness which adds comfort to your carpet. Residential.
			1. Thickness: 3/8 inches (10 mm).
			2. "R" value: 0.88
			3. Mass: 106 oz per sq yd (3.594 g per sq m).
			4. Density: 22 lbs per cu ft (352.4 kg per cu m).
			5. Tensile: 214 N per 5 cm.
			6. Content: Minimum 95 percent recycled rubber bonded with synthetic rubber.
			7. Roll Size: 15 sq yd (8.36 sq m).
			8. Roll Weight: 66 lbs (29.94 kg).
			9. Roll Width: 54 inches (1372 mm).
			10. Roll Length: 20 ft (6.1 m).
			11. Roll Diameter: 11 inches (279 mm).
			12. Coverage: 90 sq ft (8.4 sq m).
			13. Acoustical Value: IIC 94 / ASTM E90 & E492 - Impact Sound Transmission with a carpet and a suspended ceiling.
			14. Moisture Protection: N/A.
			15. Water Vapor Transmission Rate: N/A.
			16. Green Quality: CRI Green Label Plus approved.
			17. Anti-Microbial: Naturally resists mold, mildew, and fungus growth.
			18. Radiant Heated Floors: Suitable for radiant heated floor.
			19. Flammability per ASTM D2859 Class 1: Passes the Pill Test.
				1. ASTM E648 Radiant Panel Test as an assembly with a Class 1 commercial carpet.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly constructed and prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
		2. DURA-SON:
			1. Make sure the subfloor is clean and dry. We recommend the installation of a vapor barrier on a cement base if the installation is in a humid environment.
			2. Install DURA-SON with the black side facing down.
			3. Floating Floors i.e. laminate or engineered hardwood, DURA-SON must be simply placed, and not glued, on the floor.
			4. For Glued Floors (Hardwood Engineering):
				1. DURA-SON on the Floor: Use a good quality, multi-purpose glue.
				2. DURA-SON with Engineered Wood: Use a urethane-based adhesive.
			5. Can be installed parallel or perpendicular to the floor.
			6. Tape DURA-SON seams with duct tape. Always follow manufacturer's instructions.
		3. DURA-SON MB:
			1. Make sure the subfloor is clean and dry.
			2. For floating installations only.
			3. Install DURA-SON MB with the black side facing down.
			4. Can be installed parallel or perpendicular to the floor.
			5. Joints must be closed as hermetically as possible and taped with a vapor barrier tape (red Tuck tape). Always follow the manufacturer's instructions.
		4. DURACOUSTIC:
			1. The subfloor must be structurally sound, flat, clean, and dry.
			2. Install DURACOUSTIC with the black side facing down. Place seams tightly together with duct tape.
			3. Install polyethylene foam or fiberglass board along the wall perimeter of the entire subfloor and around any protrusions at the perimeter. The isolation of the floating floor prevents flanking between floors and walls. Tape or tack-glue the isolation.
			4. Gypsum Concrete: When the coating is gypsum concrete, follow the manufacturer's instructions.
			5. Cement Board: When cement board toppings are used, install 2 layers of 1/2 inch (13 mm) cement board perpendicularly with a 1/4 inch (6 mm) gap and an 8 inches (203 mm) minimum overlap. Use 2 inch (51 mm) fiberglass tape embedded in ceramic mortar.
			6. Plywood: When plywood toppings are used, install 2 layers of 1/2 inch (13 mm) plywood. The 2 layers must be glued together using a 1/4 inch (6 mm) square trowel for full coverage. Leave 1/4 inch (6mm) of space around the perimeter of the floor and fill the gap with acoustical sealant. The two layers are fastened by screws in the corners and in the center and must not penetrate DURACOUSTIC to prevent sound transmission.
			7. Always follow the manufacturer's instructions.
		5. DURAQUIET:
			1. Installation for Ceramic and Natural Stone Tile.
				1. Follow ceramic and natural stone tile manufacturer's instructions.
				2. Installation and subfloor requirements must conform to TCA or TCC standards.
				3. Concrete subfloor must be clean, dry, and checked for excessive moisture. A waterproof membrane may be required.
				4. Areas requiring fill patching or levelling must be prepared using a self-levelling underlayment.
				5. Install a perimeter isolation strip or foam along the wall perimeter of the entire subfloor, and around any protrusions at the perimeter.
				6. Adhere DURAQUIET using a urethane-based adhesive, butt the seams together, ensuring not to overlap the membrane.
				7. Immediately roll the floor using a 50-75 lb. roller to ensure proper adhesive transfer, starting with the width and then the length.
				8. Apply dry-set mortar over DURAQUIET, as directed by mortar manufacturer.
				9. Grout tiles using polymer-modified grout or a 100% solids epoxy grout.
			2. Installation for Vinyl Flooring:
				1. Follow the vinyl manufacturer's instructions.
				2. Concrete subfloor must be clean, dry, and checked for excessive moisture. A waterproof membrane may be required.
				3. Areas requiring fill patching or levelling must be prepared using a self-levelling underlayment.
				4. Adhere DURAQUIET using a urethane-based adhesive, butt the seams together, ensuring not to overlap the membrane.
				5. Immediately roll the floor using a 50-75 lb. roller to ensure proper adhesive transfer, starting with the width and then the length.
				6. Seal DURAQUIET with a moisture-cured urethane adhesive.
				7. Adhere the vinyl tile or vinyl floor to DURAQUIET using the recommended acrylic adhesive by the vinyl manufacturer.
		6. PROTECTOR, DURACUSHION, DURALUX COMFORT, and SUPER DURA:
			1. Double Bonding Installation:
				1. The carpet cushion should be laid with the black side facing down.
				2. Cushion should be laid rubber side down in the longest length possible.
				3. Align cushion seams perpendicular to carpet seams. If not possible, keep a minimum distance of 6 inches from carpet seams. Consider dry laying the carpet at this stage.
				4. Apply quality multi-purpose adhesive with a 1/8 x 1/8 x 1/8 inch U-notch trowel, spread evenly over the floor surface according to adhesive manufacturer's instructions.
				5. After indicated adhesive open time, place the cushion with the black side down onto the adhesive, align seams tightly and apply light pressure on the cushion with a roller to ensure contact with adhesive.
				6. Trim excess cushion at perimeter of the room.
				7. Spread premium multi-purpose adhesive on the cushion's surface with a 1/8 x 1/8 x 1/8 inch U-notch trowel, following adhesive manufacturer's directions. After indicated adhesive set time, position carpet on adhesive-covered cushion.
				8. Follow manufacturer's instructions when preparing and installing carpet, with special attention to seams and rolling the final installation.
				9. Let adhesive set before exposing installation to foot traffic.
			2. Stretch-In Installation:
				1. Measure the length and width of the room and cut the carpet cushion tosize, leaving a 1/2 inch gap around the perimeter of the room.
				2. Carpet cushion should be laid with the black side facing down. Ensure that it covers the entire area of the room.
				3. Use a double-sided carpet tape to secure the edges of the carpet cushion to the floor along the perimeter of the room, leaving a 1/2 inch gap around the edges.
				4. Install tack strips around the perimeter of the room, making sure to leave a 1/4 inch gap between the strip and the wall.
				5. Stretch the carpet over the carpet cushion and tuck the carpet into the gap between the tack strip and the wall using a knee kicker or power stretcher.
				6. Use a carpet knife to trim any excess carpet along the edges of the room.
		7. PROTECTOR and DURACUSHION Stair Installation:
			1. Install cushion black side facing down.
			2. Measure and cut carpet cushion to the width of the carpet runner minus approximately 1/4 to 1/2 inch (6 to 12 mm).
			3. Cut cushion for each stair tread, to fit the tread including the nosing.
			4. Stretch the cushion in place and staple the cushion.
			5. Do not install the cushion on the riser.
			6. Follow the carpet manufacturer's guidelines.
		8. DURALUX GRIP and DURALUX COMFORT Cut & Lay Installation:
			1. Unroll cushion on the floor.
			2. Trim cushion with a carpet knife to be slightly smaller than the runner (approximately 1/2" narrower on each side).
			3. Lay cushion with the jute side facing up, rubber side down (toward the rug).
			4. Place the runner directly on top of the cushion and adjust as needed.
		9. DURAPAD:
			1. Carpet Tile Installation:
				1. Make sure the subfloor is clean and dry.
				2. Adhere DURAPAD down to the subfloor with the use of a high-performance carpet adhesive and using a 1/8" x 1/8" x 1/8" U-notch trowel. Always install with the black side down. To minimize flanking, leave a small excess of underlayment around the perimeter of the installation. At corners, gently bend the underlayment so a portion curves up the wall.
				3. DURAPAD seams must be placed tightly together and preferably taped with duct tape.
				4. Adhere DURAPAD to the carpet tile with the use of a high-performance carpet adhesive and using the correct trowel. Always install with the black side down.
				5. After the finished flooring is installed, carefully trim the excess underlayment along the perimeter so it sits flush with the floor surface. Always follow the flooring manufacturer's specifications.
			2. Vinyl Floor - Floating LVP/LVT Installation:
				1. Ensure the subfloor is clean, dry, and tested for excessive moisture.A waterproof membrane may be required.
				2. Roll out DURAPAD perpendicular to the direction of the flooring.
				3. Butt the edges of each row tightly without overlapping. Secure seams with duct tape.
				4. Trim the underlayment around walls and obstacles using a utility knife.
				5. Follow the flooring manufacturer's installation guidelines.
			3. Vinyl Floor - Glue-Down LVP/LVT Installation:
				1. Ensure the subfloor is clean, dry, and tested for excessive moisture. A waterproof membrane may be required.
				2. Secure DURAPAD onto the subfloor with a urethane-based adhesive, rolling out DURAPAD perpendicular to the direction of the flooring.
				3. Tape all seams tightly with duct tape and allow the underlayment to settle as per adhesive curing time.
				4. Use the specified adhesive and trowel size, and follow the flooring manufacturer's specifications when adhering LVP/LVT to DURAPAD.
	4. FIELD QUALITY CONTROL
		1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection, or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
	1. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturer's recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION