SECTION 09 93 00

STAINING AND TRANSPARENT FINISHING

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\*\* NOTE TO SPECIFIER\* DuraSeal; wood stains, finishes, and sealers.
This section is based on the products of DuraSeal, which is located at:
101 Prospect Ave.
Cleveland, OH 44115
Email: SportFloors@DuraSeal.com
Web: http://www.duraseal.com
[Click Here] for additional information.
For over 100 years, DuraSeal has been the industry leader in providing stains, sealers, finishes, fillers, and maintenance products for the hardwood flooring professional. While DuraSeal initially manufactured coatings for the asphalt, concrete, and wood flooring industries, our specialization today is on products specifically for hardwood floors.
We pride ourselves on manufacturing the most innovative, highest quality products available. DuraSeal has the right product for every application and environmental demand.
Since 1898, we have focused on our most valuable asset, our customer. Our reputation and our relationships are built on heritage, superior quality, innovation, and commitment. We don't take these words lightly, and we are confident in the quality of our products. We make it right the first time, every time!

1. GENERAL
	1. SECTION INCLUDES

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

* + 1. Masterline Water-Based Polyurethane Finish. (Water Based Finish)
		2. Masterline Polyurethane Finish 550 VOC. (Oil Modified Finish)
		3. DuraSeal DuraClear 1K Polyurethane Finish. (Clear Water Based Finish)
	1. RELATED SECTIONS.

\*\* NOTE TO SPECIFIER \*\* Add any sections below relevant to this project as required.

* + 1. Section 09 64 00 - Wood Flooring.
	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 D523 - Standard Test Method for Specular Gloss.
			2. ASTM D1640 - Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings.
			3. ASTM D2369 - Standard Test Method for Volatile Content of Coatings.
			4. ASTM D3828 - Standard Test Methods for Flash Point by Small Scale Closed Cup Tester.
			5. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
	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.
	2. 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.
	3. 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.
	4. 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.
	5. WARRANTY
		1. Manufacturer's standard limited warranty unless indicated otherwise.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Sherwin-Williams, which is located at:101 Prospect Ave.Cleveland, OH 44115Toll Free Tel: 800-4-SHERWIN (474-3794)Tel: 216-566-2000Fax: 216-566-1392Email: [request info (specifications@sherwin.com)](https://arcat.com/rfi?action=email&company=Sherwin-Williams&message=RE%253A%2520Spec%2520Question%2520(09930dsl)%253A%2520&coid=35477&spec=09930dsl&rep=&fax=216-566-1392);Web: <https://www.sherwin-williams.com/architects-specifiers-designers> | <https://www.uniflexroof.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.

* 1. PRODUCT: MASTERLINE WATER-BASED POLYURETHANE FINISH (WATER BASED FINISH)
		1. Basis of Design: MASTERLINE Water-Based Polyurethane Finish. A single-component, durable wood floor finish for residential, commercial and Sports Floor uses. A less than 275 VOC water-based formulation allows for fast drying finish. Outstanding flow and leveling.
			1. Luster: Gloss: 90 minimum according to ASTM D523.
		2. Product Properties:
			1. Dry Time and Cure: Based on thin coat application, good ventilation, an average temperature of 77 degrees F and 50 percent relative humidity. Lower temperature, higher humidity, lack of air movement or excessive application extends dry time.
				1. Recoating: 2 hours according to ASTM D1640.
				2. Hot coat window is 2 to 8 hours
				3. Allowing Light Traffic: 24 hours after final coat.
			2. Coverage: Approx. 500 to 600 sq ft per gallon (12.3 to 14.7 sq m per Liter).
			3. Dry Film Thickness: 0.6 mil per coat.
			4. Number of Coats: 1-2.
			5. Odor: Mild Amine.
			6. Clean-Up: Clean application tools with warm water immediately after use.
			7. Storage: Store at room temperature. Keep container tightly closed.
				1. If stored at high temperature, cool to room temperature before use.
				2. Keep from freezing. Product is unusable if frozen.
		3. Physical Properties:
			1. Resin Type: Urethane.
			2. Density: 8.25 to 8.65 lbs per gallon (0.99 to 1.04 kg per Liter)
			3. Solvent: Water, 1-methyl-2-Pyrrolidone, Glycol Ether.
			4. Viscosity: 90 to 130 cps.
			5. Solids: 29.0 to 31 percent according to ASTM D2369
			6. VOC: 2.29 lbs per gallon (275 grams per Liter) maximum according to ASTM D3960.
			7. pH: 7.00 to 9.00

\*\* NOTE TO SPECIFIER \*\* SETAFLASH is a registered trademark of Stanhope-Seta Limited.

* + - 1. Flash Point: Greater than 212 degrees F (100 degrees C) SETAFLASH according to ASTM D3828.

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

* 1. PRODUCT: MASTERLINE POLYURETHANE FINISH 550 VOC (OIL MODIFIED FINISH)
		1. Basis of Design: MASTERLINE 550 VOC Polyurethane., A durable oil modified finish suitable for large volume applications such as Sports Floors, meeting halls, multiple-unit dwellings, and other commercial uses. The product will have a slight ambering or darkening effect when applied over light-colored surfaces.
			1. Luster: Gloss.
		2. Product Properties:
			1. Dry Time and Cure:
				1. Recoating: 8 hours.
				2. Allowing Light Traffic: Overnight.
			2. Coverage: Approx. 500 to 600 sq ft per gallon (12.3 to 14.7 sq m per Liter).
			3. Clean-Up: Clean applicators with mineral spirits or paint thinner.
			4. Storage: Store at room temperature. Keep container tightly closed.
		3. Physical Properties:
			1. Resin Type: Oil modified urethane.
			2. Density: 7.30 lbs per gallon (0.87 kg per L)
			3. Solvent: Mineral spirits.
			4. Viscosity: 200 cps.
			5. Solids: 44.0 percent.
			6. VOC: less than (4.59 lbs per Gallon) 550 grams per liter
			7. Flash Point: 105 degree F (40.56 degrees C).
		4. Health and Safety HMIS Rating:
			1. Health: 2.
			2. Flammability: 2.
			3. Reactivity: 0.

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

* 1. PRODUCT: DURASEAL DURACLEAR 1K POLYURETHANE FINISH
		1. Basis of Design: DuraSeal DuraClear 1K Polyurethane Finish (Clear Water Based Finish). A single-component, durable clear wood floor finish for residential, commercial and Sports Floor uses. A less than 275 VOC water-based formulation allows for fast drying finish. Cleans up with warm water.
			1. Luster: Gloss: 90 minimum according to ASTM D523.
		2. Product Properties:
			1. Number of Coats; 1-2.
			2. Dry Time: Based on thin coats, an average temperature of 77 degrees F and 50 percent relative humidity.
				1. Re-Coat: Within 2 hours. Meets ASTM D1640.
				2. Hot coat window 2 to 24 hours
				3. Allowing Light Traffic: 24 hours after final coat.
			3. Dry Film Thickness: 0.6 mils (0.15 mm) per coat.
			4. Coverage: Approx. 500 to 600 sq ft per gallon (12.3 to 14.7 sq m per Liter)
			5. Odor: Mild Amine.
			6. Clean-Up: Clean application tools with warm water immediately after use.
			7. Storage: Store at room temperature. Keep container tightly closed.
				1. If stored at high temperature, cool to room temperature before use.
				2. Keep from freezing. Product is unusable if frozen.
		3. Physical Properties:
			1. Resin Type: Urethane.
			2. Solids: 29 to 33 percent according to ASTM D2369.
			3. Solvent: Water, Tripropylene glycol n-butyl ether.
			4. Product Weight: 8.65 to 8.76 lbs per gallon (1.04 to 1.05 kg per L).
			5. Viscosity: 90 to 155 cps.
			6. VOC: 1.04 lbs [er ga(125 grams per Liter) or less according to ASTM D3960
			7. pH: 7.0 to 9.0.

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* + - 1. Flash Point: Greater than 212 degrees F (100 degrees C) SETAFLASH according to ASTM D3828.
1. EXECUTION (BUFF AND RE-COAT)
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly constructed and prepared.
			1. Previously Finished Floors: Do not apply over floors previously finished with shellac, lacquer, wax, stains containing stearates, or finishes in very poor condition in need of complete removal.
		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 DuraSeal for achieving the best result for the substrate under the project conditions.
			1. Buff the floor as to not show swirl marks on existing finish. DuraSeal recommends 150 to 180 grit pads.
			2. Vacuum and tack floor accordingly based on DuraSeal Product Data Page.
				1. Masterline Water-Based Polyurethane (Water Based Finish): Use water to tack and allow to dry thoroughly.
				2. Masterline Polyurethane Finish 550 VOC (Oil Modified Finish): Use virgin mineral spirits to tack floor and allow to dry thoroughly.
				3. DuraSeal DuraClear 1K Polyurethane Finish (Clear Water Based Finish): Use water to tack and allow to dry thoroughly.
	3. APPLICATION

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete floor types not required.

* + 1. Masterline Water-Based Polyurethane Finish (Water Based Finish):
			1. Apply at 500 to 600 square feet per gallon with preferred application method.
			2. If applying one coat allow to dry minimum overnight.
			3. If a second coat is desired, apply second within hot coat window (2 to 8 hours) or buff if over 8 hours and recoat.
				1. Vacuum and tack the floor after buffing process prior to applying second coat.
		2. Masterline Polyurethane Finish 550 VOC (Oil Modified):
			1. Apply at 500 to 600 square feet per gallon with preferred application method.
			2. If applying one coat allow to dry minimum overnight.
			3. If a second coat is desired, repeat the buffing process outlined in Article 3.2, Paragraph B-1 and apply second coat.
				1. Vacuum and tack the floor after buffing process prior to applying second coat.
		3. DuraSeal DuraClear 1K Polyurethane Finish (Clear Water Based Finish):
			1. Apply at 500 to 600 square feet per gallon with preferred application method.
			2. If applying one coat allow to dry minimum overnight.
			3. If a second coat is desired, apply second within hot coat window (2 to 24 hours) or buff if over 24 hours and recoat.
				1. Vacuum and tack the floor after buffing process prior to applying second coat.
	1. FIELD QUALITY CONTROL
		1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.
	2. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturers recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION