



**VARATHANE®
PREMIUM DIAMOND WOOD FINISH
FLOOR - WATER BASED**

DESCRIPTION AND USES

Varathane Premium Diamond Floor Finish provides protection for your wood that is diamond hard, diamond clear, and diamond beautiful. Varathane Premium Diamond Floor Finish is specifically developed to enhance the natural beauty of wood while providing the best protection available against heavy foot traffic. Varathane water based finishes will stay crystal clear over time to give your floor a contemporary feel.

When it comes to polyurethanes, one formula does NOT fit all projects. Only Varathane offers application specific formulations:

Application

Premium Diamond Wood Finish
Premium Diamond Floor Finish
Premium Diamond Outdoor Finish

Protection

Scratch and Stain
Scuff and Scratch
UV Protection & Weatherability

For Interior projects use Varathane Premium Diamond Wood Finish which provides the best scratch and stain resistance available. For Outdoor projects use Varathane Premium Diamond Outdoor Finish with powerful UV absorbers to guard against sun damage.

Varathane Premium Diamond Floor Finish is ideal for all stained or unfinished floors. With twice the durability as traditional floor finishes, the best scratch and mar resistance available in water based polyurethane. Varathane saves you time.

PRODUCTS

Type	Satin	Semi-Gloss	Gloss
3.78L	Y230231	Y230131	Y230031
18.9L	Y230221	Y230121	Y230021

RECOMMENDED COMPANION PRODUCTS

Recommended use with Varathane Premium Oil Stains and Varathane Diamond Wood Stain.

Varathane Premium Oil Stains are available in 24 colors and 4 different sizes (Trial Packets, 236mL, 946mL and 3.78L). Use the Varathane Trial Packets to sample different colours.

Varathane Diamond Wood Stains are available in 10 colours and a variety tint colours. See your store for colours. Available in one size. (946mL).

PRODUCT APPLICATION

PREVIOUSLY FINISHED SURFACES

For best adhesion, surfaces must be clean, dry, and free of old finishes, wax, grease, oils, silicones, glues, polish, dust, dirt, mildew or foreign matter. Do not apply over sanding sealers, linoleum, vinyl or tile. Waxes must be removed with a wax stripper; sanding does not remove wax. Shellac must be removed with a paint stripper. Old finishes in poor condition must be removed. Previously finished floors in good condition should be cleaned with a T.S.P. (Tri Sodium Phosphate) solution in water and rinsed thoroughly with clean water. Do not use T.S.P. on bare wood floors as discolouring will occur. Sand surface and remove all sanding dust using a vacuum or a tack cloth dampened with water. Do not use steel wool as rust may develop after finish has been applied.

STAINED OR PAINTED WOOD

Follow manufacturer's direction for application of stain or paint. Make certain surface is thoroughly dry before applying Varathane Premium Floor Diamond Wood Finish. Refer to manufacturer's label for dry times. For best results, use Varathane Premium or Diamond Wood Stains.

UNFINISHED SURFACE PREPARATION

Using the Varathane ezV® Sander, sand the new wood surface. Progress through sanding discs to get a smooth surface. Refer to the *Varathane Floor Finishing brochure* for more information. Remove all sanding dust using a vacuum or a tack cloth dampened with water. If a filler or putty is used, make sure that it does not contain wax and allow for enough time to dry thoroughly.

NOT RECOMMENDED FOR

Linoleum, vinyl or glazed tiles and metal.

APPLICATION TIPS

Product appears milky when wet but dries to a crystal clear finish. Use adequate ventilation at all times. Apply only when the room temperatures are above 13°C (55°F), and below 32°C (90°F). Woods with high oil content, heavy coats, high humidity and/or low temperatures and limited ventilation will slow dry times. Do not dilute. To prevent bubbles in the finish, do not over-brush, shake, or apply with a roller. Test Varathane Premium Floor Diamond Wood Finish in an inconspicuous area before beginning. Use care when applying over white or pastel paints or stains as discoloration may occur.

When using multiple containers of product, intermixing (boxing) should be done to ensure sheen uniformity.



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PRODUCT APPLICATION (CONTINUED)

APPLICATION (Brush)

- 1.) Stir thoroughly before and during use. **DO NOT SHAKE**, shaking will create bubbles in the finish. For best results, VARATHANE brushes and applicators are recommended.
- 2.) Apply using synthetic bristle brush, foam brush, or pad applicator. Edge with the brush and use the pad applicator for the remaining floor surface going lengthwise with the grain of the wood.
- 3.) Allow finish to dry minimum of 2-3 hours before re-coating. Lower temperatures and/or higher humidity may cause slower dry times. Re-coat only when previous coats have dried clear and feel hard. (Should no longer feel tacky to the touch.) A powder should develop when lightly sanded. If any coat has dried more than 24 hours, lightly sand before re-coating to avoid brush marks.
- 4.) Apply additional coats following directions above. If grain raise occurs, sand smooth with fine sandpaper before final coat.

DRY TIMES

To Touch: 1 hour, To Recoat: 2 to 3 hours, Light traffic 6 24 hours, Full cure 6 3 days. Dry times are at 21°C and 50% relative humidity.

TIP

Care should be taken during the first week after application as the finish is still curing to its ultimate hardness.

EQUIPMENT RECOMMENDATIONS

AIR-ATOMIZED SPRAY:

Type of Gun	Fluid Tip	Atomizing Pressure
Standard Compressed Air	1.0-1.3mm (0.039"-0.051")	45-80 p.s.i.
HVLP Turbin	1.0-1.3mm (0.039"-0.051")	10 p.s.i.
HVLP Conversion	1.0-1.3mm (0.039"-0.051")	10 p.s.i. (at the tip)

SPRAY TIPS

*Fluid Tips must be plastic or stainless steel.

PRODUCT APPLICATION (CONTINUED)

CLEAN UP

For fast, easy clean-up, use water. Dispose of properly. For guidance on disposal of unused product, contact your local or provincial government environmental control agency.

KEEP FROM FREEZING

PERFORMANCE CHARACTERISTICS

PENCIL HARDNESS

METHOD: D3363

RESULT: 2H

CHEMICAL RESISTANCE KCMA Rating 1-10 10= No defects

Vinegar	10
Lemon juice	10
Grape juice	10
Orange juice	10
Catsup	10
Coffee	10
Olive Oil	10
100 proof alcohol	7 stains and recovers
mustard	7 slight stain
Spic and Span	10

HOFFMAN SCRATCH

Method: D2197

2.8 kilograms to rupture

IMPACT RESISTANCE Direct/Reverse

METHOD: D2794

RESULT: 120/90

TABER ABRASION

METHOD: ASTM D4060

RESULT: Approx. 50 mg loss CS 17 1000g 1000 cycles

GLOSS (60°)

METHOD: D523

RESULT: 25/55/80

TECHNICAL DATA



VARATHANE® PREMIUM DIAMOND WOOD FINISH FLOOR - WATER BASED

PHYSICAL PROPERTIES

		Satin	Semi-Gloss	Gloss
Resin Type		Urethane-Acrylic	Urethane-Acrylic	Urethane-Acrylic
Pigment Type		Matting agents and Aluminum Oxide	Matting agents and Aluminum Oxide	Aluminum Oxide
Solvents		Glycol ethers-water	Glycol ethers-water	Glycol ethers-water
Volatile Organic Compounds*		Less than 275g/l (2.2 lb/gal)	Less than 275g/l (2.2 lb/gal)	Less than 275g/l (2.2 lb/gal)
Weight Per Gallon	Per Gallon	8.3-8.5 lb	8.3-8.5 lb	8.3-8.5 lb
	Per Liter	1.00-1.02 kg	1.00-1.02 kg	1.0-1.02 kg
Solids	By Weight	27.1-29.1%	27%-29%	28.1-30.1%
	By Volume	26-28%	26-28%	27.1-29.1%
Recommended Dry Film Thickness (DFT) Per Coat		0.8 – 1.5 mils (19-38µ)	0.8 – 1.5 mils (19-38µ)	0.8 – 1.5 mils (19-38µ)
Wet Film to Achieve DFT Per Coat		1½ - 3 mils (37.5-75µ)	1½ - 3 mils (37.5-75µ)	1½ - 3 mils (37.5-75µ)
Theoretical Coverage @ 1mil DFT (25µ)		415-450 sq ft/gal (9.9-10.7m ² /l)	415-450 sq ft/gal (9.9-10.7m ² /l)	445-475 sq ft/gal (10.6-11.3m ² /l)
Practical Coverage @ Recommended DFT (Assumes 15% Material Loss)		400–450 sq ft/gal (9.7-11m ² /l)	400–450 sq ft/gal (9.7-11m ² /l)	400–450 sq ft/gal (9.7-11m ² /l)
Dry Times at 70°-80°F (21°-27°C) and 50% Relative Humidity	Tack Free	1 hours	1 hours	1 hours
	Handle	1.5 hours	1.5 hours	1.5 hours
	Recoat	2 hours	2 hours	2 hours
Dry Heat Resistance		212°F (100°C)	212°F (100°C)	212°F (100°C)
Shelf Life		3 years	3 years	3 years
Safety Information	Flash Point	>212°F (100°C) Setaflash	>212°F (100°C) Setaflash	>212°F (100°C) Setaflash
	Contains	No lead has been deliberately added.	No lead has been deliberately added.	No lead has been deliberately added.
	Warning!	CONTAINS: GLYCOL ETHERS, N-METHYL PYROLIDONE WARNING. HARMFUL IF SWALLOWED. MAY CAUSE EYE AND SKIN IRRITATION. WEAR EYE PROTECTION AND PROTECTIVE CLOTHING. REFER TO MATERIAL SAFETY DATA SHEET FOR ADDITIONAL INFORMATION.		

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