

**MINWAX® Technical Data Sheet**  
**MINWAX® Water Based Helmsman® 275 VOC Compliant Formula**  
**for Gloss, Semi, and Satin**

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**DESCRIPTION:**

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Minwax® Water Based Helmsman® Spar Urethane is specially formulated to protect wood against nature's toughest conditions. Water Based Helmsman® forms a protective barrier against rain and moisture and its special oils allow the finish to expand and contract with the wood as seasons, temperatures, and humidity change. The enhanced ultraviolet absorbers found in Water Based Helmsman® reduce the graying and fading effects of the sun and its superior formula allows for a rapid recoat.

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**RECOMMENDED USE:**

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Minwax® Ideal For: Doors, Windows, Trim, Bathroom Cabinets, Bar Tops, Kitchen Countertops and Outdoor Furniture.

Note: Water Based Helmsman® is not recommended for use on floors. To protect floors, use Minwax Water Based Oil-Modified Polyurethane or Minwax Water Based Polyurethane for Floors.

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**SURFACE PREPARATION:**

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- Surface must be dry and free of paint, wax, grease, polish, old finishes in poor condition or any foreign matter.
- Sand to obtain a smooth, uniform surface. Do not use steel wool. Remove all dust with a damp cloth.
- If desired, apply stain, such as Minwax® Wood Finish®, to unfinished interior wood surfaces. Follow directions for application instructions and dry times.

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

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**APPLICATION NOTES:**

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**Product Preparation**

- Stir well before and occasionally during use. Do not thin.

**Application**

- Apply a thin coat of Water Based Helmsman® using a high quality bristle brush appropriate for use with water based finishes.  
On unfinished wood, apply sufficient material to seal open joints, edges and end-grain.
- Let dry at least two hours, then sand entire surface lightly with very fine sandpaper (220 grit) to ensure an even finish and proper adhesion of additional coats.
- Apply second coat. Water Based Helmsman® requires a third coat - repeat above step before application. Note: For exterior surfaces or for previously unfinished wood, four coats are recommended.

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**DRY TIME:**

- After final coat, allow 24 hours before normal use. If applied to countertops, allow 72 hours before normal use.

Note: Dry times are based on good ventilation, temperature of 77 F and 50% relative humidity. Lower temperature, higher humidity, lack of air movement or application of thick coats will extend drying times. Always test surface for tackiness between coats. When used for exterior applications, maintain by lightly sanding and adding an additional coat(s) as conditions require. Water Based Helmsman® is not recommended for large exterior surfaces where maintenance would be difficult, such as decks and siding. Slight ambering may be experienced when Water Based Helmsman® is applied over light-colored stains or wood surfaces.

Always spot test on an inconspicuous area to ensure satisfactory results.

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**MAINTENANCE:**

Damp wiping with Minwax® Wood Cleaner is recommended. Mild detergent and water may also be used. Do not use abrasive pads.

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**CLEANUP/STORAGE:**

Clean application tools with warm water immediately after use.

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**SAFETY:**

**CAUTIONS: CONTAINS 1-METHYL-2-PYRROLIDINE.**

**Contains material that may cause adverse reproductive effects and may adversely affect the developing fetus based on animal data. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. FIRST AID: In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

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**PHYSICAL PROPERTIES:**

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		<u>Testing Method</u>
Resin type:	Oil-modified urethane	
Solvent:	Water	
Luster:	Gloss, Semi and Satin	ASTM D523
No. of Coats:	3 recommended (Abrade between coats)	
Dry-time:	Recoat: 2 hours	Gardner circular
Sheen:	Gloss 87% minimum	
	Semi: 50 to 64%	
	Satin: 18 to 32%	
Dry film thickness:	2 mil	
Flash point:	Greater than 206 F	ASTM D 3828
Applicator:	synthetic bristle brush	
VOC (grams/liter)	275 Maximum	EPA Method 24
Coverage (sq. ft./qt.):	Approximately 500 sq. ft. per gallon	
% Solids:	28.5 – 31.5	
Pounds/Gallon:	8.59-8.82	ASTM D 2369
Viscosity(Centipoise):	140-230	