

TECHNICAL DATA SHEET

UNITHANE® 458W

Modified alkyd

PRODUCT APPLICATION DETAILS

UNITHANE® 458W is a polyurethane resin that is designed to produce fast drying coatings of excellent abrasion resistance.

SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Solid content (125°C, %)	54 - 56	ISO 3251
Viscosity (25°C, Gardner)	X-Z	Gardner-Holdt
Color (Gardner)	Max. 6	ASTM D-1544
Acid value (mg KOH/g)	Max. 3	ISO 2114

OTHER CHARACTERISTICS¹

	CHARACTERISTICS	METHODS
Solvent	White Spirit	-
Density (25°C, g/mL)	0.91	-
Fatty acid type	Soya Bean Oil	-
Fatty acid content (%)	66	-
Modification	Urethane	-

¹The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications

MARKETS

Coatings & Inks

- Architectural Coating
 - Deck Restoration
 - Stains
 - Trim
- Industrial Coating
 - General Industry
 - Marine
 - Protective And Marine Coating
 - Wood Furniture
 - Wood Parquet

PERFORMANCE BENEFITS

- Fast drying time
- Good abrasion resistance
- Excellent gloss

UNITHANE® 458W

FORMULATION GUIDELINES

UNITHANE® 458W is recommended for uses in applications such as floor varnish, furniture sealers and coatings, and pigmented coatings for hostile environments typified by breweries and food processing plants. It also finds general use in combination with alkyds in decorative paints where it speeds drying up and improves hardness and chip resistance. Suitable drier for general use are a combination of Cobalt and Zirconium to give 0.05% and 0.15% respectively when expressed as metal on solid resin. Addition of up to 0.2% of calcium drier metal on solid resin will reduce drier absorption on storage in pigmented coatings.

When UNITHANE® 458W is required to give maximum drying speed and abrasion resistance it should be used alone. Where it is employed with alkyds to speed drying under adverse weather conditions or to produce harder coatings then it can be blended with a long oil alkyd to give 20 - 40% of UNITHANE® 458W based on solid resin. A suitable anti-skinning agent is methyl ethyl ketoxime at the level of 0.10% to total paint.

SOLUBILITY

Aromatic hydrocarbon — Complete

Aliphatic hydrocarbon — Complete

Ester — Complete

Ketone — Complete

Alcohol — Partial

COMPATIBILITY

Long Oil Alkyd — Very Good

Oleo-resinous Varnish — Good

Medium Oil Alkyd — Fair

PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

STORAGE AND HANDLING

UNITHANE® 458W should be stored indoors in the original, unopened and undamaged container, in a dry place at a temperature not exceeding 35°C. Exposure to direct sunlight should be avoided.

In the above mentioned storage conditions the shelf life of the resin will be 12 months.

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