

# UNITHANE® 458W

MODIFIED ALKYD

ARKEMA COATING RESINS

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

**Performance Benefits**

- Fast drying time
- Good abrasion resistance
- Excellent gloss

**Polymer Type**

- Solventborne Urethane Alkyd

<b>Sales Specifications</b>	Solid Content at 125°C, % (ISO 3251)	54 - 56
	Viscosity at 25°C, Gardner Holdt	X - Z
	Colour, Gardner scale (ASTM D1544)	6 max
	Acid value, mg KOH/g (ISO 2114)	3 max

<b>Other Characteristics<sup>1</sup></b>	Volatile	White spirit
	Density / Specific Gravity at 25°C, g/ml (ISO 2811)	0.91
	Type of fatty acid	Soy Bean Oil
	Fatty Acid content, %	66

Note: Acid value and/or Hydroxyl value quoted relative to solid resin

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

## 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

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### COMPATIBILITY

Long Oil Alkyd	Very Good
Oleo-resinous Varnish	Good
Medium Oil Alkyd	Fair

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### **Product Safety**

Please refer to the corresponding Safety Data Sheet.

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### **Storage & 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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