



PRODUCT TECHNICAL DATASHEET

Kalex 42223-52223 Urethane Adhesive

PRODUCT DESCRIPTION

KALEX 42223-52223 is a medium-hardness, highly flexible two-component polyurethane system designed for use as an adhesive and in casting and coating applications requiring rapid cure, high flexibility, high resilience and resistance breakdown or yellowing from exposure to UV light.

Kalex 42223-52223 is nearly impervious to water exposure during the curing process and exhibits high resistance to aqueous materials after cure. Long-term and prolonged resistance to hydrocarbon-based materials is minimal.

To obtain the best cured properties, accurate proportioning and thorough mixing are essential.

MIXING AND CURE SCHEDULE

The production of the desired polyurethane requires accurate measurement of the two components and adequate mixing. In general, hand-mixing small production runs is easily accomplished by weighing the two components. Machine mixing utilizes the volumetric ratio. Most machines are calibrated by weighing the components and adjusting the volume ratio. Larger volume hand mixing is easily controlled by filling pre-measured buckets to the indicated heights. The mix ratios are shown below.

MIX RATIO

Ratio	Part A	Part B
By weight	100	100
By volume	100	100

The cure schedule is dependent upon the temperature. The recommended cure schedule will vary with the desired properties. The recommended schedule to achieve the typical properties is shown below:

24 hours @ 25 °C (77 °F) – Various heat-cure profiles may produce suitable results.

TYPICAL UNCURED PROPERTIES

	Part A	Part B	Mixed
Color	Water-clear	Clear	Clear
Viscosity @ 25 °C, cps	12,000	2000	
Weight per Gallon, lbs.	8.55	8.08	
Specific Gravity@25°C	1.02	0.97	

Gel time, minutes, 200gm mass @ 25 °C, --- --- 15

Filler Type None None None
 Shelf Life, months 6 6 ---

TYPICAL CURED PROPERTIES

Hardness (Shore D)	50
Tensile Strength, Average, psi	905
Tensile Elongation, Average, %	403
Tensile Lap Shear, Aluminum, psi	400
Water Absorption, 24hr@25°C, %	1.1
Water Absorption, 30days@25°C, %	1.2
Water Absorption, 24hr@60°C, %	1.2
Water Absorption, 30days@60°C, %	1.4

STORAGE AND HANDLING

These materials should be stored in a dry environment within a temperature range of 16 °C to 27 °C (60 °F to 80 °F). Extremes of temperature beyond this range may result in crystallization or polymerization of the materials. Introduction of a nitrogen blanket into the containers before closing will improve the storage life of the products.

A wide variety of cleaning solutions are available for cured and uncured epoxies and polyurethanes. For more information on proper recommendations and procedures, contact the Technical Department.

SAFETY

These materials are intended for industrial use only, and the practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

Although the system contains low volatility materials, care should be taken in handling. Use adequate ventilation in the work area.

These materials may cause dermatitis in susceptible individuals. Keep off skin and out of eyes. In case of accidental skin contact, wash thoroughly with soap and water. In case of eye contact, flush eyes thoroughly with water and consult a physician immediately.

Refer to Material Safety Data Sheet for additional

information.

ADDITIONAL INFORMATION

Visit our web site at:

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NOTE

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