



42223/52223 **DOUBLE/BUBBLE® A-85 Urethane Purple**

42223/52223 (DOUBLE/BUBBLE® A-85) 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, transparency and resistance to breakdown or yellowing from exposure to UV light. 42223/52223 is nearly impervious to water exposure during the curing process, yet bonded substrates should be reasonably water-free before application. It exhibits high resistance to aqueous materials after cure. 42223/52223 is suitable for sealing and bonding of flexible substrates such as flexible conveyor belts, printing press rollers, rubberized fabrics, shoes, ski boots and other sports equipment. It is also excellent for bonding refrigeration and AC equipment.

Technology / Base	Polyurethane
Type of Product	Structural Adhesive
Components	Two Component
Curing	Room Temperature (secondary thermal cure)
Appearance / Color	Clear
Consistency	Liquid

Features and Benefits

- Excellent impact performance
- High peel strength
- Clear with high resistance to UV light (yellowing and breakdown)
- Bonds a wide variety of substrates including metals, ceramics, natural rubber, thermosetting polymers and many engineering thermoplastics

Technical Data

Rheology	Value	Condition/Method
Viscosity - Part A	12000	at 25°C
Viscosity - Part B	2000	at 25°C
Viscosity - Mixed	4000	at 25°C
Uncured Material Characteristics		
Volume Mix Ratio	100 to 100	
Weight Mix Ratio	100 to 100	
Specific Gravity	1.00	
Gel Time	15 min	at 25°C 200 g
Handling Time	90 min	at 25°C
Full Cure	24 hours @ 25 °C (77 °F)	The cure schedule is dependent upon the temperature. The recommended cure schedule will vary with the desired properties. Various heat-cure profiles may produce suitable results.
Operating Temperature	66°C (150°F)	
Shelf Life	6 months unopened, 18 months in DOUBLE/BUBBLE® packaging	
Cured Mechanical Properties		
Hardness	50 Shore D	ASTM D2240
Tensile Strength	905 psi	ASTM D638, 25°C 50% RH
Elongation at Break	403%	ASTM D638, 25°C 50% RH
Overlap Shear Strength		
Aluminum, Acid Etched at 25°C	400 psi	ASTM D1002, 24 hr at 25°C 50% RH
Water Absorption, 24hr, 25°C	1.10%	% weight gain, immersion
Water Absorption, 30day, 25°C	1.20%	% weight gain, immersion
Water Absorption, 24hr, 60°C	1.20%	% weight gain, immersion
Water Absorption, 30day, 60°C	1.40%	% weight gain, immersion



General Instructions

To obtain the best cured properties, accurate proportioning and thorough mixing are essential. 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. Surface must be clean and dry before application. Remove all chemicals, dirt, wax and oil. Abrading or of the bonded surface is recommended. Pre-cleaning with a mild solvent such as acetone or acetone-containing blends will enhance bonding characteristics over high-flexibility substrates.

Storage

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. When using meter-mixed dispense equipment (MMD) machines, reservoir should be blanketed with nitrogen or dry air to avoid moisture and other contamination. Avoid contamination with oxidized metals (such as copper, brass, or mild steel), and rust or other metal oxides. The stability of the product is greatly reduced by materials such as strong acids or bases, sulfur compounds, amines, or reducing agents of any type.

Specifications and Approvals

Handling and Clean-Up

See SDS for handling and clean-up information.

Safety and Disposal

See SDS for safety and disposal information.

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Date Modified: 01 October 2015

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