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Technical Data Sheet

502

Description

Insulcast® 502 is a clear, unfilled epoxy with low viscosity for general purpose casting and impregnation. The pot life can be customized by various Stage B options (Insulcure® 9 shown on TDS) and use of Insulcure® 11B offering Class F operating properties.

Typical Uncured Properties	Part A	Part B
Color	Clear	Amber
Mix Ratio by Volume	100	13
Mix Ratio by Weight	100	13
Component Density, g/ml	1.13	0.97
Component Viscosity, cP @25°C	700	55
Pot Life @25°C, min	45	
Shelf Life, Months @25°C	12	

Typical Cured Properties	
Tensile Strength, psi (MPa)	10700 (74)
Tensile Elongation, %	5.4
Service Temperature, °C	-40 to 105
Thermal Conductivity, W/mK	0.23
UL94 Performance	N/A
Shore Hardness (D)	85

Typical Cure Schedule

Temperature	25°C (77°F)	60°C (140°F)	120°C (248°F)
Cure Time, hrs	4 - 8	N/A	N/A

Electrical Properties	
Dielectric Strength, V/mm	425
Dielectric Constant (1 KHz)	4.0
Dissipation Factor (1 KHz)	0.023
Volume Resistivity, Ω*cm	2x10^15
Coefficient of Thermal Expansion	75x10^-6

Insulcure® Stage B	9	11B	20	24	26
Pot Life, min.	45	300	60	80	120
Mix Ratio (by weight)	100:13	100:18	100:38	100:54	100:50

Mixing Instructions

NOTE: Some light, but soft settling will occur which is readily redispersed. Premix Part A and Part B in original containers before removing any material

1. Measure out required amount of Insulcast® 502
2. Measure appropriate amount of Insulcure® Stage B and add into Stage A, mixing container thoroughly, scraping sides and bottom
3. Evacuate the mixture at 14.24 psi (29 in. Hg) for 3 to 4 minutes for void-free castings
4. Pour into desired unit or mold

Storage Requirements

Store at room temperature. This product may settle upon shipment or storage.
The product should be re-mixed well prior to use. Store material in a cool dry place.

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Safety & Handling

ITW Performance Polymers (ITW PP) recommends users to follow all recommended safe practices for handling its products. Refer to the Safety Data Sheet (SDS) and label for health and safety information before using this product. Also refer to itwpp.com for additional information and other frequently asked questions. Avoid breathing possible fumes, mists and vapors which can cause severe respiratory damage. Use of NiOSH approved breathing apparatus is required for more than minimal exposure. Always work in areas with adequate ventilation to allow dissipation of polyamine and other chemical fumes, and where applicable, solvent fumes. Use goggles, protective garments, rubber gloves, protective cream is suggested. If material gets into eyes flush thoroughly with clean water for twenty (20) minutes; then seek medical treatment. Avoid skin contact. Material can cause contact dermatitis. Always wash exposed areas immediately, using warm water and soap. Observe all safety precautions. It is important when using solvent-based materials or solvents to keep away from open flame or iginition sources.

Product Use

Industrial Use Only. Many factors beyond ITW PP control and uniquely within user's knowledge and control can affect the performance of this product in any particular application. Given the variety of factors that can affect use and performance, the end user is solely responsible for evaluating any ITW PP product and determining its suitability and fitness for a particular purpose, product design, production, final application, and end result.

Exclusion of Warranties

The Data stated here are typical values and offered in good faith. Given the variety of factors that can affect the use and performance of an ITW PP product, the end user is responsible for evaluating any ITW PP product and determining whether it is fit for purpose and suitable for user's design, production, and final application. Unless an additional Warranty is expressly stated, ITW PP warrants that the ITW PP product meets the applicable ITW PP product specification at the time ITW PP Ships the product. As to the herein described materials and test results, there are no warranties which extend beyond the description on the face hereof. ITW PP MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. IF THE ITW PP product does not conform to this warranty, then the sole and exclusive remedy is, at ITW PP's option, replacement of the ITW PP product or refund of the purchase price.

Limitation of Liability

Except where prohibited by law, ITW PP shall not otherwise be liable for loss of damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.

ITW Performance Polymers

North America
130 Commerce Drive
Montgomeryville, PA 18936
+1 855-489-7262

EMEA
Shannon, Ireland
+353 61 771500

www.itwpp.com
cs@itwpp.com

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