



TECHNICAL BULLETIN #3108 – INSULCAST 3316 HFR-S LOW VISCOSITY, EPOXY POTTING COMPOUND UL 94V-0

Revised: 05/2018

PRODUCT DESCRIPTION

INSULCAST 3316 HFR-S is a fast setting, low viscosity, flame-retardant (V-0) epoxy system designed for casting applications. When cured with **INSULCURE 383 Blue**, it gives room temperature cures in 12 hours. This system combines the features of several systems. It has excellent thermal conductivity, very high peel strength, good thermal shock resistance and a smooth glossy surface upon cure.

INSULCAST 3316 HFR-S can also be used as an adhesive system, setting in thin films in about 2 hours.

PROPERTIES UNCURED

	INSULCAST 3316 HFR-S	INSULCURE 383 Blue	
COLOR, VISUAL	White	Blue	-
VISCOSITY @ 25°C, cps	30000	500	ASTM D 2393
SPECIFIC GRAVITY	1.8	1.0	-
MIX RATIO (by wt.)	100:20-25		-
MIXED VISCOSITY, cps	24000		-
SHELF LIFE @ 25°C, months:	12	12	-
GEL TIME 3-4grams, mins:	10-15		-

PROPERTIES CURED

PHYSICAL		
HARDNESS, DUROMETER (Shore D)	80-90	ASTM D 2240
TENSILE STRENGTH, psi:	4200	ASTM D 638
THERMAL SHOCK CYCLES °C	-55 to +100	

ELECTRICAL

DIELECTRIC STRENGTH, volts/mil	400	ASTM D149
DIELECTRIC CONSTANT, 1 KHz	4.3	ASTM D150

USE INSTRUCTIONS

1. Stir **INSULCAST 3316 HFR-S** in its original container to insure complete dispersion of the fillers.
2. While settling at room temperature is minimal, any heating of the heating of the **INSULCAST 3316 HFR-S** to reduce the viscosity for automatic dispensing may cause filler separation
3. Weigh out 100 parts of the **INSULCAST 3316 HFR-S** into a clean mixing container.
4. Add 20 to 25 parts of **INSULCURE 383 Blue** and mix thoroughly.
5. Pour into units to be potted. Allow to cure 12 hours at room temperature.

CURE SCHEDULE

Allow to cure 12 hours at room temperature.

STORAGE REQUIREMENTS

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.

IMPORTANT:

The following supersedes any provision in your company's forms, letters and papers. ITW PERFORMANCE POLYMERS makes NO WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE FOR THIS PRODUCT. No statements or recommendations contained in the product literature are to be construed as inducements to infringe any relevant patent, now or thereafter in existence. UNDER NO CIRCUMSTANCES SHALL ITW PERFORMANCE POLYMERS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES FROM ALLEGED NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY, ARISING OUT OF THE USE OR HANDLING OF THIS PRODUCT. The sole liability of ITW PERFORMANCE POLYMERS for any claims arising out of the manufacture, use or sale of its products shall be to refund the buyer's purchase price, provided such products have been demonstrated in ITW PERFORMANCE POLYMERS sole opinion, to justify such refund.

HEALTH CAUTION:

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 of goggles, protective garments, rubber gloves, protective cream is required. 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, followed by rinsing with clean water. Observe all safety precautions. It is important when using solvent based materials or solvents to keep away from open flame or ignition source.

PLEASE REFER TO MATERIAL SAFETY DATA SHEET FOR FURTHER FIRST AID INFORMATION. FOR CHEMICAL EMERGENCY, CALL CHEMTREC (DAY OR NIGHT) 800 424-9300.



ITW Philadelphia Resin
Registered to ISO 9001:2000
File No. A3798



ITW Performance Polymers Europe
ISO 9001:2000
Q 06-420