

## F259 INSULDERM 1235HF CLASS 'H' INSULATING VARNISH

### INTRODUCTION

A high quality insulating varnish for the impregnation of coil windings used in the manufacture and repair of components such as electrical transformers, electrical field windings etc. This product is formulated to give a class H thermal rating, when tested in accordance with the test methods described in BS2757: 1986, with a very high bond strength. The controlled solvent blend gives fast cure, ease of application and superior tank stability.

### AVAILABILITY

Supplied from stock in 5 litre lever lid cans, 25 litre drums and 200 litre barrels.

### COMPOSITION

Phenolic modified isophthalic polyester in a suitable solvent blend.

### APPEARANCE WHEN CURED

A brown translucent film.

### SHELF LIFE

12 months in original unopened container.

### SOLIDS BY WEIGHT

46% - 50%

### SPECIFIC GRAVITY

0.92 - 0.93

### VISCOSITY AS SUPPLIED

100 - 160 seconds at 25°C through a BS EN 535 Flow Cup.

### FLASH POINT

38°C (Abel Closed Cup)

### COMPONENT PREPARATION

All components must be clean and dry free from oil, grease and other surface contamination. If INSULDERM 1235HF is used for repair purposes all flaking or damaged existing insulation must be removed. Application over contaminated surfaces can severely impair the performance of this product.

### APPLICATION

Normally applied by vacuum pressure impregnation.

If applied by dipping in a suitable tank, an addition of T11 Thinner may be required to achieve optimum dipping viscosity.

### CURING SCHEDULE

The curing schedule will vary considerably with the shape, weight, thermal conductivity of the components and also the thermal efficiency of the oven together with oven capacity and load. Typically curing will take place between 1 and 8 hours at 110°C - 190°C. the curing schedule for particular components can only be determined by practical trials with INSULDERM 1235HF. Cure is deemed to have taken place when a hard solidified gel is achieved. When utilised in conjunction with high speed armatures extended curing times are recommended to avoid the possibility of centrifugal disassociation of the varnish.

### SOLVENT FOR THINNING AND CLEANING EQUIPMENT

T11 Thinner

### OVERCOATING

May be subsequently revarnished if required with INSULDERM 1235HF.

### ELECTRICAL PROPERTIES

Thermal endurance degrees centigrade based on 20,000 hours intercept.

Twisted Pair    130    240    degrees centigrade.

Helical Coil    130    180    degrees centigrade.

Dependant upon the wire enamel.

MECHANICAL PROPERTIES

Bond strength (Bundle Test)

20	90	130	155	180	Degrees Centigrade
150	120	75	50	35	Bond Strength Lbs

ELECTRICAL PROPERTIES

Di-Electrical Strength (ASTM D115).

Dry 4882 Volts/Mil

Wet 3030 Volts/Mil

CHEMICAL PROPERTIES

INSULDERM 1235HF has good resistance to moisture and a wide range of chemicals including transformer oil.

APPROVALS

Conforms to BS5629 Part 1 Category 2.1 and Category 2.4 and BS5629 Part 3 Table 3 when tested in accordance with the test methods described in BS5629 Part 2. Conforms to DEF STD 31 Type H.

HEALTH AND SAFETY INFORMATION

This Data Sheet should be read in conjunction with Product Safety Data Sheet 20.

ADDITIONAL INFORMATION

Crosbie Coatings Limited believe that the aforementioned information is to the best of our knowledge correct but no responsibility can be held for conditions of use beyond our control. Should there be any query as to the suitability for use please do not hesitate to contact the Technical Department of Crosbie Coatings Limited.