

PRODUCT INFORMATION

ULTIMEG 2020

2 PART EPOXIDE

AMBIENT CURED

TRICKLE IMPREGNATION

CLASS H (180°C)

ULTIMEG 2020 TWO PART EPOXY TRICKLE RESIN

GENERAL DESCRIPTION

Ultimieg 2020 is a Class H rated two-component epoxide trickle resin that features high bond strength at elevated temperature together with low weight loss and shrinkage due to thermal decomposition. It also has excellent electrical properties. The system is easy to process and gives good resistance to atmospheric moisture and chemical attack.

APPLICATION

For trickle impregnating of motor armature and stators together with the encapsulation, sealing and potting of small electronic and electrical components.

For non-rotational and rotational or trickle impregnating of motor armature and stators, the components to be treated is normally processed at a temperature of 60-80°C although this temperature can be varied according to component size.

2020 Mixture is slowly poured on to the heated component, and gelation takes place whilst impregnation is in progress.

SPECIFICATION

PROPERTIES OF THE BASE -

Viscosity @ 25°C	poise	20 – 25
Specific gravity		1.08 – 1.12
Appearance		clear

PROPERTIES OF THE HARDENER -

Viscosity @ 25°C	poise	0.5
Specific gravity		0.98 - 1.00
Appearance		Clear liquid

PROPERTIES OF THE MIXTURE -

Mix ratio base: hardener		5:1 pbw 4.3:1 pbv
Viscosity @ 25°C	poise	2 - 6
Specific gravity		1.06 – 1.12
Usable life 100 grams mass		30 minutes

PACKAGING

1kg, and 5 kg kit

NOTE: Due to the introduction of improvements from time to time the right is reserved to supply products that may differ slightly from those illustrated or described in this publication.

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WORKSHOP PRACTICE

Most problems occur with 2 part systems due to the failure to mix correctly. The following procedure is recommended: -

Stir the base component prior to mixing to ensure any settled filler is included. The stirring process should scrape the bottom and the sides of the container and be sufficient to ensure there are no dead areas of unmixed material but should also be a relatively slow process stirring a horizontal circular motion so that minimal air is included into the mix. This initial stir is made easier if the base component only is heated to 30-40°C and stirred some hour before the 2 components are mixed. Use of still warm base component will reduce the usable life of the mixture. The base and hardener can be measure out by weight, volume or by using all of the pre-weighed kit, but is should be noted the usable life of the mixture decreases as the weight of the mix increases. Ensure the base and hardener are mixed thoroughly using the minimal air inclusion method described previously. This mixing process can take up to 4-5 minutes, and it is recommended that, if the usable life allows, extra time is spent mixing at this stage where failure to mix is most frequent.

CURE SCHEDULE

24 hours @ 25°C ,6 hours @ 50°C

In order to develop maximum properties is recommended that the U2020 be warmed to 50°C. Heat cured samples will exhibit a superior appearance as the material can have a slight surface tack unless it is warmed whilst it is allowed to cure.

PROPERTIES OF CURED COMPOUND

Shore D hardness	DIN 53505	85
Thermal Class	ASTM D2307/2000hrs	180°C
Deflection temperature	IEC1006	60°C
Tensile strength	ISO 527	23N/mm2
Elongation at break	ISO 527	2%
Thermal Conductivity	ISO 8894-1	0.22 W/M/K
Dielectric strength	q IEC 243-1	182 Kv/cm.
Dielectric constant	IEC 250	4.31 @ 50Hz
Volume resistivity	IEC 93	> 10 ¹³ ohm/cm ³
CTI	IEC 112	>550V

STORAGE

24 months shelf life, stored between 10°C and 30°C.

HEALTH & SAFETY

See relevant Material Safety Data Sheet.

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