

## BICASEAL



## Solid Setting Putty

### General Information

#### Description

Bicaseal is a two part putty mix, supplied as individually wrapped sticks of resin and hardener, which are different in colour to aid complete mixing. It has a usable life of 60 minutes at 20°C with an average setting time of 1 hour 30 minutes.

It becomes a hard mass after approximately 4 hours. It should ideally be left, without any movement, over night to cure fully. At reduced ambient temperatures, the setting time will increase and the mixing of the two components will become more difficult. Before application of the putty mix, ensure that the surfaces are clean and free from oil or lubricants, and where possible roughen the surfaces to aid adhesion. Water immersion, or the presence of water, will not prevent setting.

However, for good seals the surface should be dry. The maximum continuous operating temperature is 120°C, (with a maximum temperature of 450°C for short periods of time). Bicaseal putty is not affected by oils (e.g. transformer oil) and the surfaces may be painted after curing.

#### Mixing

Equal lengths of resin and hardener should be cut from the sticks and worked together by hand until a uniform colour is achieved. It is important that the equal amounts of resin and putty are mixed together, as incorrect quantities will adversely affect the compound. The putty is easy to mix and starts to set as soon as mixed.

#### Hygiene

As the compound is an epoxy putty, a small proportion of users could be sensitive to it. Normal hygiene standards should be set by the user, i.e. wash hands immediately after use.

Disposable plastic gloves should be worn during both mixing and application.

During cold weather, it is advantageous for the compound to be warmed to aid mixing and thus avoid damage to the gloves.

#### Packing

Each 0.5kg pack of Bicaseal contains two sticks each of resin and hardener, individually wrapped.

### APPLICATIONS

#### Cable Terminating

Bicaseal can be used for capping ends of metal or PVC/XLPE sheathed cables and for sealing the crutches of PVC/XLPE cables. It can be used to make a 'wipe' between a service box and a PVC/XLPE sheathed cable. Neat plumbs can be formed with Bicaseal.

#### Development

Can be used for modelling prototypes, is an excellent medium for moulding, and can be machines when fully cured.

#### Repairs

Bicaseal is an effective medium for repairs to objects made of wood, metal, ceramics etc. The joint made between most materials have good mechanical strength.

## Technical Data Sheet BICASEAL 2 Putty

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**PROPERTIES**

APPEARANCE	RESIN BASE ACTIVATOR	Smooth red putty Smooth off white putty
MIXING RATIO	1 : 1	Weight/Weight or Volume/Volume
MIXED DENSITY	1.8 ± 0.02 g/cm <sup>3</sup>	
CURED DENSITY	1.8 ± 0.02 g/cm <sup>3</sup>	
BARCOL HARDNESS	75	After 6 - 7 hours cure at 20°C
WORKING LIFE	60 minutes	At 20°C
CURE TIME (FIRM)	3 hours	At 20°C
CURE TIME (OPTIMUM)	10 hours	At 20°C
MINIMUM CURING TEMPERATURE	5°C	
MINIMUM OPERATING TEMPERATURE	-40°C	
MAXIMUM CONTINUOUS OPERATING TEMPERATURE	120°C	
SPECIFIC VOLUME	555 cm <sup>3</sup> /kg	
HEAT DISTORTION TEMPERATURE	48°C	
DIELECTRIC STRENGTH	300 V/mil	At 1/8" Thick
VOLUME RESISTIVITY	10 <sup>13</sup> .cm	

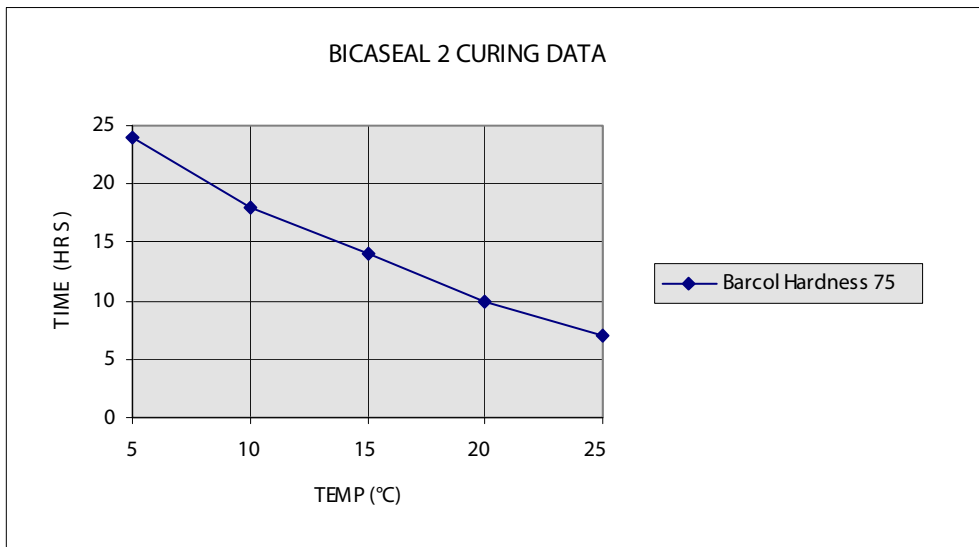
*Make the right connection...*



**BICASEAL CURING DATA**

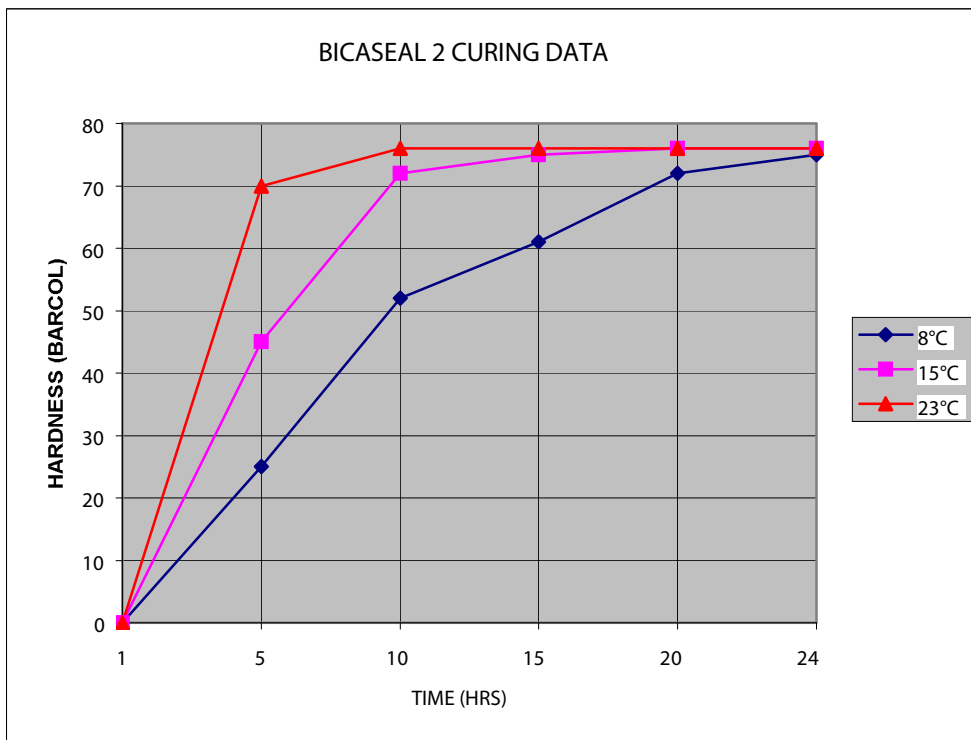
Curing Time vs. Temperature to Reach 75 Barcol Hardness

Temperature (°C)		5	10	15	20	25
Time (Hrs) to	75 Barcol Hardness	24	18	14	10	7



Barcol Hardness vs. Time at Different Temperatures

Time (Hrs)		1	5	10	15	20	24
Hardness (Barcol)	8°C	0	25	52	61	72	75
Hardness (Barcol)	15°C	0	45	72	75	76	76
Hardness (Barcol)	23°C	0	70	76	76	76	76



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### CHEMICAL RESISTANCE

10% Sulphuric Acid	E
50% Sulphuric Acid	E
Concentrated Sulphuric Acid	P
10% Hydrochloric Acid	E
10% Nitric Acid	E
10% Phosphoric Acid	G
10% Sodium Hydroxide	E
5% Aluminium Sulphate	E
Brake Fluid	E
Petrol	E
Crude Oil	E
Ammonia (Household)	E
Ammonia (s.g. 0.88)	P
Creosote	E
Methanol	F
Ethanol	F
10% Acetic Acid	P
Sodium Hypochlorite	E
1.1.1. Trichloroethane	E
Ferric Chloride	E
Water	E
Sea Water	E
Linseed Oil	E
Castor Oil	E
Phenol	P
Cresol	P
White Spirit	E
Xylene	E
Acetone	F
Perchloroethylene	E
Turpentine	F
Benzene	G
Diethleneglycol	P
Dibutylphthalate	E
Chlorinated Paraffin	E
Hexane	E
Ethyl Acetate	F

Key: E = Excellent  
F = Fair  
G = Good  
P = Poor