

# PRODUCT DATASHEET



TENCATE ADVANCED COMPOSITES

## TenCate EF72

### Modified epoxy structural film adhesive

#### PRODUCT TYPE

120°C (248°F) cure

Modified epoxy structural adhesive film

#### TYPICAL APPLICATIONS

- Composite and metallic skin bonding to lightweight cores

#### SHELF LIFE

##### Out life

1 month @ 20°C (68°F)

##### Storage life

12 months @ -18°C (0°F)

Out life is the maximum time allowed at room temperature before cure.

#### To avoid moisture condensation

Following removal from the freezer, allow the TenCate EF72 to reach room temperature before opening the polythene bag. Typically, the thaw time for a full roll of material from storage at -18°C (0°F) will be 4 to 6 hours.

#### PRODUCT DESCRIPTION

TenCate EF72 adhesive film is a high strength epoxy adhesive formulation supplied in the form of a light weight flexible film. It is intended for metal to metal or sandwich core to skin bonds and has a strong self-filleting action in honeycomb-to-skin bonds.

The film is protected on one side by a release paper and on the other by a polythene separator. A lightweight polyester net is incorporated into the adhesive film to ensure easy handling whilst cutting and positioning. TenCate EF72 is compatible for co-cure with TenCate's E700 series.

#### TENCATE EF72 BENEFITS / FEATURES

- High performance bonding in both composite and metallic structures
- Excellent filleting to honeycomb, ideal for honeycomb sandwich construction
- Suitable for press moulding, autoclave and vacuum bag cure
- Compatible for co-cure with TenCate's E700 series
- Accurate control of adhesive distribution, reduced wastage
- Medium tack level, clean and easy to apply
- Available in a range of surface weights (100g/m<sup>2</sup>, 200g/m<sup>2</sup> and 300g/m<sup>2</sup>)
- No solvents, low volatile content
- Long shelf life at ambient temperature

#### TYPICAL NEAT RESIN PROPERTIES

Density .....1.20 g/cm<sup>3</sup> at 23°C (73°F)

Tg (DSC).....112°C (233°F)

#### TYPICAL ADHESIVE PROPERTIES

Climbing drum sandwich peel strength and tensile lap shear strength at 20°C (68°F) according to DTD 5577.

TenCate EF72 Resin film weight (g/m <sup>2</sup> )	Condition	Climbing drum peel strength (N/75mm)	Tensile lap shear
300	RTD	550	36 MPa/ 5 ksi

Moulding conditions for the test samples were as follows:  
\*Heated 1 hour at 120°C (248°F). 25 P.S.I. pressure applied.

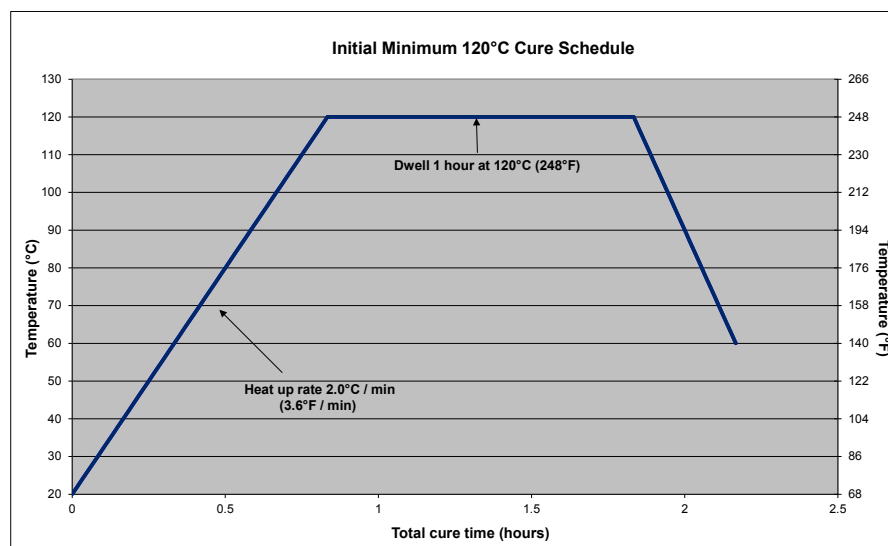
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### CURE CYCLES



### RECOMMENDED CURE CYCLES

- Cure for 60 mins at 120°C (248°F). It is recommended that heat up rates of 2°C (3.6°F) to 5°C (9°F) /min are employed.
- Allow to cool to 60°C prior to releasing vacuum and removal from mould.

### PROCESSING

- It is important that all substrates to be adhered are de-greased and free from contamination before use.
- Following removal from refrigerated storage, allow resin film to reach room temperature before opening the polythene bag, to avoid moisture condensation.

### STANDARD ROLL QUANTITIES

Resin film weight incl polyester net (g/m <sup>2</sup> )	Roll length [linear m (ft)]	Width [m (ft)]
100	41 (134.5)	1.22 (4)
200	41 (134.5)	1.22 (4)
300	41 (134.5)	1.22 (4)

Other roll lengths are available on request.

The film is supplied on rolls with a polyester net carrier. The film is protected by release paper on one side and polythene separator on the other.

### HANDLING SAFETY

Observe established precautions for handling epoxy resins and fibrous materials.

For further information refer to the Safety Data Sheet, available from TenCate Advanced Composites, Langley Mill.

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All data given is based on representative samples of the materials in question. Since the method and circumstances under which these materials are processed and tested are key to their performance, and TenCate Advanced Composites has no assurance of how its customers will use the material, the corporation cannot guarantee these properties.

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