

# PRODUCT DATASHEET



TENCATE ADVANCED COMPOSITES

## TenCate EC85 High Gloss Epoxy Surface Coat

### PRODUCT TYPE

2 part epoxy paint used to give a high gloss finish to epoxy tooling block

### TYPICAL APPLICATIONS

- Production of high performance composite tooling
- Complementary product for TenCate AmberTool™ HX-series

### SHELF LIFE

#### Storage life at 20°C (68°F)

Part A (epoxy base) 6 months  
Part B (hardener) 6 months  
Part C (thinner) 24 months

### PRODUCT DESCRIPTION

TenCate EC85 is an essential element of the TenCate AmberTool™ composite tooling package, and has been developed to provide the best interface between high quality epoxy tooling blocks and TenCate AmberTool™ HX-series of epoxy tooling prepreg. TenCate EC85 provides a very hard, high gloss finish to the tooling block allowing tools with an excellent glossy surface finish to be easily produced.

### TENCATE EC85 BENEFITS/FEATURES

- Easily applied to the tooling block
- Chemical and solvent resistant
- High gloss finish
- High hardness

### TYPICAL PROPERTIES

Density ..... Part A (epoxy base) 1.1 g/cm<sup>3</sup> (68.7lbs/ft<sup>3</sup>)  
..... Part B (hardener) 0.9 g/cm<sup>3</sup> (56.2lbs/ft<sup>3</sup>)  
Service temperature..... 75°C (167°F) maximum

### MIX RATIO

TenCate EC85 epoxy surface coat is supplied as a two part system (epoxy base part A 1 litre + hardener part B 1 litre) with an optional thinner constituent part C (1 litre).

Part A: Epoxy base paint (black coloured)

Part B: Hardener (amber coloured)

1 kit (part A 1 litre + part B 1 litre) covers 3 to 4 m<sup>2</sup> assuming a good quality block has been used and the surface has been prepared to a high standard.

Mix ratio	Example
<b>By volume</b>	
1 part A (epoxy base)	100 cm <sup>3</sup>
1 part B (hardener)	100 cm <sup>3</sup>
<b>Parts by weight</b>	
1 part A (epoxy base)	100 g
1 part B (hardener)	80 g

## TenCate EC85 High Gloss Epoxy Surface Coat

### SPRAY APPLICATION

The surface of the tooling block to be coated must be clean and dry, with all traces of oil and grease removed with a suitable solvent, TenCate EC85 part C thinner is ideal.

For best results, spray application is recommended and a purpose built spray booth should always be used. A suitable breathing mask should be worn, preferably air fed.

Apply 4 light coats, allowing a minimum of 10 minutes between each coat, ensuring that the final coat has wet out the surface fully, thus ensuring the highest quality gloss finish.

A third constituent, TenCate EC85 part C thinner, is also available to aid application of the paint onto more porous surfaces. Use of this product depends on the substrate to be coated and it is recommended that the customer carries out trials beforehand.

Allow to air dry for a minimum of 2 hours.

### OVEN DRYING / POSTCURE

After allowing the paint to dry for a minimum 2 hours at ambient temperature 20°C (68°F) the paint should be postcured in an oven to increase the hardness.

A postcure of 4 hours at 60°C (140°F) is recommended, although if the master cannot withstand 60°C, 12 hours at 45°C (113°F) should be used.

### FINAL PREPARATION

TenCate EC85 epoxy surface coat can be easily sanded smooth to remove any surface blemishes or dust marks using fine wet and dry abrasive paper (P1200 grit). To achieve the best gloss surface finish, automotive type rubbing / polishing compounds can be used.

Once the master model has been polished, wipe the surface with a suitable solvent to remove any final traces of polishing compound, TenCate EC85 part C thinner is ideal.

### HANDLING SAFETY

Observe established precautions for handling epoxy resins and solvents. Wear gloves and use suitable breathing masks, preferably air fed. For further information refer to Material Safety Data Sheet.

### PROCESSING

Processing parameters and instructions for our TenCate AmberTool™ HX-series tooling prepregs are provided in the processing information "Autoclave cured tools using TenCate AmberTool™ HX-series" available from TenCate Advanced Composites or at [www.tencate.com](http://www.tencate.com)

**Note:** TenCate EC85 has been specially developed for use with high quality epoxy tooling blocks.

No claims of performance are made with any other application, e.g. polyurethane blocks and we therefore recommend that TenCate EC85 is tested for each application individually.

Revised 08/2014

*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 USA, Inc. has no assurance of how its customers will use the material, the corporation cannot guarantee these properties.*

*TenCate AmberTool™ and all other related characters, logos and trade names are claims and/or registered trademarks TenCate and/or its subsidiaries. Use of trademarks, trade names and other IP rights of TenCate without express written approval of TenCate is strictly prohibited.*

Page 2 of 2

EC85\_V8\_DS\_082114

## TENCATE ADVANCED COMPOSITES

Amber Drive, Langley Mill  
Nottingham, NG16 4BE UK  
Tel: +44 (0) 1773 530899  
Fax: +44 (0) 1773 768687

G. van der Muelenweg 2  
7443 RE Nijverdal NL  
Tel: +31 548 633 933  
Fax: +31 548 633 299

18410 Butterfield Blvd.  
Morgan Hill, CA 95037 USA  
Tel: +1 408 776 0700  
Fax: +1 408 776 0107

[www.tencate.com](http://www.tencate.com)

[www.tencateadvancedcomposites.com](http://www.tencateadvancedcomposites.com)  
[www.tencateindustrialcomposites.com](http://www.tencateindustrialcomposites.com)  
E-mail: [advancedcomposites.europe@tencate.com](mailto:advancedcomposites.europe@tencate.com) (Europe)  
E-mail: [info@tcac-usa.com](mailto:info@tcac-usa.com) (USA)

ISO 9001  
ISO 14001  
Registered  
AS 9100