

**Advanced Materials****RenCast® 5146 Isocyanate / RenCast® 5146 Polyol / Filler DT 081**

LAMINATING PASTE (MULTI-PURPOSE)  
 LIGHT PASTE FOR TAMPING AND TOUGHENING  
 (SHELL BUILD-UP TECHNIQUE)

**KEY PROPERTIES**

- **Very stiff and very light (density: 0.77 g/cm\*)**
- **Easy to mix by hand (up to 3 kg) or machine**
- **Workable, easy to apply paste (without glass fibres)**
- **Can be applied to a thickness of 10 - 40mm, little exotherm and therefore minimal shrinkage**
- **Heat resistant up to 80°C**

**APPLICATIONS**

- Build-up of moulds using the shell build-up technique, support shells, tools and any form of auxiliaries.

**PRODUCT DATA**

| Property             | Unit              | RenCast®<br>5146 Isocyanate | RenCast®<br>5146 Polyol | Filler<br>DT 081 |
|----------------------|-------------------|-----------------------------|-------------------------|------------------|
| Appearance<br>Colour | visual            | Liquid<br>Light yellow      | Liquid<br>Opaque beige  | -                |
| Viscosity at<br>25°C | m Pa s            | 16 - 25**                   | 1700 - 2100**           | 0.7              |
| Density              | g/cm <sup>3</sup> | 1.2                         | 1.1                     |                  |

*\*\* Specified data are on a regular basis analysed. Data which is described in this document as 'typical' is not analysed on a regular basis and is given for information purposes only. Data values are not guaranteed or warranted unless if specifically mentioned.*

**TYPICAL SYSTEM DATA****PROCESSING**

| Mix ratio                | Parts by weight |
|--------------------------|-----------------|
| RenCast® 5146 Isocyanate | 80              |
| RenCast® 5146 Polyol     | 100             |
| Filler DT 081            | 200             |

Mix the two components thoroughly in the ratio indicated until the mixture has a homogenous colour. Mixing can be done manually or by using a planetary/kneader/dough mixer. Do not use a mixer on a drilling machine.

To produce layers of controlled thickness, roll out between spacers onto polythene, and apply as a layer. Post-curing will improve final properties.

**PROPERTIES**

| Resin/Hardener mix:  | Volume  | Unit | RenCast <sup>®</sup> 5146 Isocyanate<br>RenCast <sup>®</sup> 5146 Polyol<br>Filler DT 081 |
|----------------------|---------|------|---|
| Appearance           |         |      | grey, workable paste  |
| Pot life at 25°C     | 1000 ml | min  | 30 - 40   |
| Max. Layer thickness |         | mm   | 300   |
| Demoulding time      |         | h    | 10-14   |

*After cure: 7 days at RT or 14 hours at 40 °C*

|                                  |           |                                  |         |
|----------------------------------|-----------|----------------------------------|---------|
| Density                          | ISO 1183  | g/cm <sup>3</sup>                | 0.77    |
| Coefficient of thermal expansion | ISO 11359 | 10 <sup>-6</sup> k <sup>-1</sup> | 40 - 50 |
| Deflection temperature           | ISO 75    | °C                               | 80      |
| Flexural strength                | ISO 178   | MPa                              | 35 - 40 |
| Linear shrinkage (1000x60x40mm)  |           | mm/m                             | 0.1     |

**STORAGE**

Provided that RenCast<sup>®</sup> 5146 Isocyanate and RenCast<sup>®</sup> 5146 Polyol are stored in a dry place in their original, properly closed containers at the storage temperatures mentioned in the MSDS they will have the shelf lives indicated on the labels. Partly emptied containers should be closed immediately after use.

**WORKING CONDITIONS**

The product should be used when in the temperature range 18-25oC.

**PACKAGING**

| System              | RenCast <sup>®</sup> 5146 Isocyanate | RenCast <sup>®</sup> 5146 Polyol | Filler DT 081 |
|---------------------|--------------------------------------|----------------------------------|---------------|
| Quantity and Weight | 20 kg                                | 25 kg                            | 20 kg         |

**HANDLING PRECAUTIONS****Caution**

Our products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data sheets for the individual products and should be referred to for fuller information.

Huntsman Advanced Materials warrants only that its products meet the specifications agreed with the user. Specified data are analysed on a regular basis. Data which is described in this document as 'typical' or 'guideline' is not analysed on a regular basis and is given for information purposes only. Data values are not guaranteed or warranted unless if specifically mentioned.

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