

### Description

N-PU 5105 is a one-part semi-flow polyurethane. It cures fast with moisture. Typical applications include sealing and protection of components on PCBs, and reinforcement of FPCs.

### Features

- Recommended substrates: PC, PCB, aluminum, glass
- Fast curing
- Excellent electrical properties when subjected to water immersion
- Soft and flexible
- Excellent resistance to moisture and various solvents

### Uncured Properties

<b>Chemical Type</b>	Modified Polyurethane
<b>Appearance</b>	White/Black Paste
<b>Specific Gravity [g/cm<sup>3</sup>]</b>	~1.4
<b>Shelf Life @ 10-28°C [months]</b>	6

### Curing Conditions

<b>Tack Free [mins]</b> @ 25°C/50%RH	5-15
<b>Curing Speed [mm/24hrs]</b> @ 25°C/50%RH	4

### Cured Properties

<b>Hardness [Shore A]</b> ASTM D2240	35
<b>Elongation at Break [%]</b> ASTM D638	450
<b>Tensile Strength [MPa]</b> ASTM D638	1.8

<b>Surface Resistivity [ohm-cm]</b> ASTM D257	>1.0x10 <sup>13</sup>
<b>Volume Resistivity [ohm-cm]</b> ASTM D257	>1.0x10 <sup>13</sup>

### Directions for Use

#### 1. Surface Treatment

Surfaces to be bonded should be free of dust, oil, grease or any other contaminants in order to achieve a reproducible bond. For slightly contaminated surfaces, it is sufficient to wipe with isopropanol or ethanol. Substrates with a low surface energy (e.g. polyethylene, polypropylene, Teflon) need to be pre-treated physically (e.g. atmospheric plasma or corona) in order to achieve sufficient adhesion.

#### 2. Application

Products are supplied ready for use. Depending on packaging, it can be dosed manually, semi-automatically or fully-automatically with a dosage apparatus.

This product is cured by reaction with moisture. The tack free and curing time are dependent on humidity and temperature.

#### 3. Suggested working temperature range is -40 to 100°C.

### Storage

Maximum shelf life may be obtained when product is stored in a cool, dry location at a temperature between **10°C to 28°C**.

TO PREVENT CONTAMINATION OF UNUSED PRODUCT, DO NOT RETURN ANY PRODUCT TO ITS ORIGINAL CONTAINER.

### Materials Handling

This product is slight irritant to eye and skin. In case of eye contact, flush with water for fifteen minutes. Wash with plenty of soap and water after skin contact. If feel uncomfortable, discontinue use and consult a physician.

Refer to the Material Safety Data Sheet (MSDS) for this product.

#### *Disclaimer*

*The information provided here including the recommendations for use and application of the product is based on internal laboratory test conditions and should only be used as a reference. CollTech does not assume responsibility for the test or performance results obtained by the user. It is the responsibility of the user to perform their own evaluations to confirm whether this product is suitable for their application.*