TECHNICAL DATA

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# ZYROBOND<sup>®</sup> PUR 6305-T Polyurethane Adhesive

PUR 6305-T is a flexible, transparent, odourless, polyurethane-based two component adhesive, which polymerises extremely quickly at room temperature.

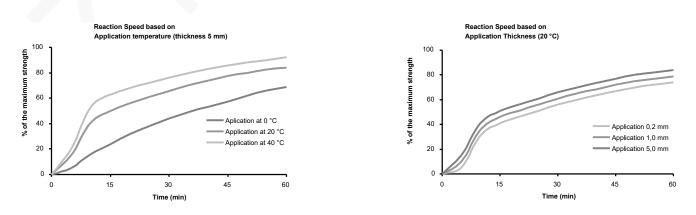
PUR 6305-T is suitable for bonding a wide variety of materials such as thermoplastics, thermosetting plastics, steel, aluminium, concrete, wood and glass.

#### **TECHNICAL DATA:**

	Part A	Part B	Mixed
Composition:	Polyol	MDI	Polyurethane
Mix Ratio: (Weight)	1	1	
Mix Ratio: (Volume)	0,89	-1	
Colour:	Transparent	Transparent	Transparent
Consistency:	Liquid	Liquid	Thixotropic
Viscosity: @ 25°C, Brookfield	5000 cps	6000 cps	30000 cps
Specific Gravity:	1.14 kg/l	1.20 kg/l	1.17 kg/l
Shore Strength A:	85		
Flammability:	> 200°C	230°C	
Steam Pressure:	very low	0.000004 mmHg	
Miscibility with Water:	Immiscible	Immiscible	
Working Temperature:	+10°C to +30°C		

#### **Reaction Mechanism:**

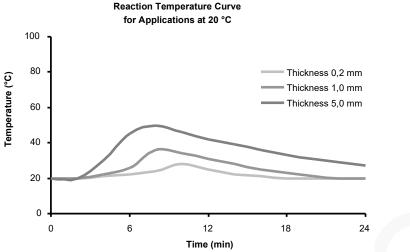
The speed of the hardening reaction is mainly influenced by two factors, the application temperature and the application thickness. Being an exothermic reaction, the speed decreases as the thickness and temperature application increase. Even if in a smaller measure, the substrate influences the speed of reaction. Materials with a high coefficient of thermal conductivity will tend to slow down the reaction. The maximal temperature of the reaction will be reached in 5 mm application thickness and is always lower than 90°C.



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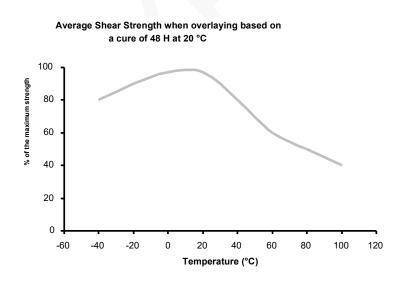


## Typical Reaction Values 10 gr. Product at 20°C

Properties	Value
Working Time	5 min
Curing Time	15 min
Time until Reaction End	480 min
Temperature of exothermic reaction	50°C

### **Typical Curing Properties:**

The mentioned properties have been measured through standard samples tests, made bonding by overlapping samples of different materials of dimensions  $100 \times 20 \times 20$  mm with an adhesion area of 20  $\times$  20 mm. The values, obtained with standard methods on typical lots, are exclusively provided as technical information, and not as product specification. It is up to the user to test the product for a suitability for their requirements.



#### Typical Product Values at 20°C

Properties	Value	
Strength	85 A	
Tensile Strength	8 N/mm <sup>2</sup>	
Elongation at Break	190%	
Specific Resistance	1,2x10 <sup>15</sup> Ω x cm	
Operating Temperature	-40 / +90°C	

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## ZYROBOND<sup>®</sup> PUR 6305-T Polyurethane Adhesive

**Preparation:** The strength and durability of the bond depends on proper preparation of the surfaces to be bonded. The surfaces must be cleaned with a suitable cleaner and free of dust, dirt, oil and grease. For the preparation of thermoplastic materials such as PVC, polycarbonate, polypropylene, polymethylmethacrylate (PMMA) etc., a mixture of light ether or isopropyl alcohol (IPA) can be used. Do not use solvents, as they could damage the surface. Acetone can be used for the pre-treatment of all other suitable surfaces. Petrol or other solvents should not be used under any circumstances. If possible, grind or sand the surfaces, removing any paint residue from the surface to be glued in order to increase the strength and durability of the bond. The surfaces must be completely dry before adhesive application.

**Instructions for Use:** The mixing must be done with a mixing nozzle with at least 16 elements. A smaller number of elements does not guaranteed a homogeneous mixing of the adhesive. A higher number of elements will cause an increase in the reaction speed of chemical curing. The mixing nozzles are disposable products and can be used only once. The two-component cartridges can be used with corresponding manual or pneumatic guns, depending on the size and shape of the cartridge. Special automatic dispensing equipment for materials with low viscosity can be used for application in industrial manufacturing plants. The mixed adhesive should be applied from the mixer directly to the primed and dry surface. The optimum thickness of the adhesive layer for maximum adhesion and durability of bonding is 0.2 mm. The components must be assembled within a minute after application of the adhesive and compressed with a constant contact pressure on the entire adhesive surface.

**Storage:** PUR 6305 has a shelf life of 12 months after preparation, provided that the product is stored in a cool and dry place at a temperature between + 10°C and + 25°C. The cartridges must be kept in a sealed plastic bag in a dark place and away from heat sources in the original packaging.

General information: The information contained herein serves merely as an indication and is given to the best of knowledge. The users must test the suitability of the product for her/its/their respective application independently however. All products purchased from or supplied by Nohtec are subject to terms and conditions set out in the contract. Nohtec warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Nohtec is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Nohtec makes no other warranty, either express or implied, including such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will infringe any patent.