

PU 2HK-N

OPEN TIME: **40 - 45 MIN.**

FIXTURE TIME: **90 - 100 MIN.**

HARDNESS: **55 – 65 SHORE D**

COLOUR: **DARK GREY**

PU 2HK-N is a two-component polyurethane adhesive designed for the structural bonding of rigid plastic materials, ceramic materials, metals, prepregs and glass.

PROPERTIES	PART A	PART B	MIXED PRODUCT
COLOUR	White	Black	Dark Grey
VISCOSITY @ 25 °C (Brookfield)	50.000 – 80.000 Cps	50.000 – 80.000 Cps	–
DENSITY @ 25 °C	1,35 ± 0,05 g/cm ³	1,7 ± 0,05 g/cm ³	1,53 ± 0,05 g/cm ³
OPEN TIME (5mm – 20°C)	–	–	40 – 45 min.
FIXTURE TIME (5mm – 20°C)	–	–	90 – 100 min.
MIXING RATIO BY WEIGHT	100	121	–
MIXING RATIO BY VOLUME	100	100	–
POLYMERIZED PRODUCT PROPERTIES			
HARDNESS @ 25°C	(ASTM D-676)	55 – 65 Shore D	
SHRINKAGE	> 1 mm		
LAP SHEAR STRENGTH (ISO 4587)	1 Cycle: (60 min. @ 90°C + 7 days @ R.T.)		
<ul style="list-style-type: none"> ➤ SMC/SMC ➤ Lam. cataphoresis / Lam. cataphoresis ➤ Lam. defatted / Lam. defatted 	<p style="text-align: right;">15 MPa (Substrate failure) 8 MPa 10 MPa</p>		
LAP SHEAR STRENGTH (ISO 4587)	1 Cycle: (10 min. @ 90°C + 30 min. @ 140°C + 90 min. @ 150 °C)		
<ul style="list-style-type: none"> ➤ SMC/SMC @ 23 °C ➤ SMC/SMC @ 80 °C 	<p style="text-align: right;">13 MPa (Substrate failure) 6 MPa</p>		
LAP SHEAR STRENGTH (ISO 4587)	3 Cycles: (8h @ -45°C + 8h @ +40°C in 98% R.H. + 4h @ -45°C)		
<ul style="list-style-type: none"> ➤ Galvanized Parts 	<p style="text-align: right;">5,70 MPa</p>		
THERMAL CONDUCTIVITY	0,6 - 0,65 W/mK		
ADHERENCE (ACI 503R)	< 3,5 MPa		
RESISTANCE TO THERMAL SHOCKS	-40 / +130 °C		
ELONGATION AT BREAK (ASTM D-638, UNI EN ISO 527)	45 – 60 %		
TENSILE ELONGATION (ASTM D-638, UNI EN ISO 527)	15 – 30 %		

Use & Properties



- Suitable for gluing and / or assembling galvanized and / or painted metal plates.
- It can be used in various industrial sectors for bonding reinforced polyesters, ABS, polycarbonates and composite materials in general.
- Low exothermic level during hardening.
- It is characterized by a low shrinkage after hardening.
- Good flexibility and adhesion on different substrates.
- Overpainted.

Application



- Before proceeding with the gluing, perform a good cleaning of the substrates.
- Remove the cap from the bi-cartridge and purge a small amount of product, to make sure that the same volume of product is extruded from both part A and part B of the cartridge.
- Connect the mixing nozzle to the bi-cartridge and dispense a sufficient amount of adhesive to ensure equal mixing between part A and B inside the mixer.
- Apply the adhesive on one of the two surfaces to be glued and assemble the components with great care.
- Remove excess glue before curing it.
- Allow the adhesive to react as long as necessary for it to develop sufficient resistance to handling.
- Notes for the user: The open time is the period of time useful for positioning the parts to be assembled and which guarantees a good wettability of the surfaces.
- The volume of the adhesive and the application temperature have a direct effect on the open time of the PU 2HK-N by speeding up or slowing down its exothermic reaction.
High temperatures and high volumes speed up the polymerization, low temperatures and thin layers of adhesive slow down this process.

Storage & Packaging



- PU 2HK-N can be stored for 6 months in the original sealed containers kept in a cool and dry place. Storage temperatures must be between 15 ° C and 25 ° C. Prolonged storage above 25 ° C will shorten the expiration date. Avoid direct contact with sunlight. Protect resin and hardener from excessive moisture.
- 400 ml Bi-cartridges + mixers.
- 24 Kg (Part A) e 29 Kg (Part B) drums.

Precautions for use



- Mastikol products must be used in compliance with the precautions normally adopted for the treatment of chemical substances. Avoid contact between uncured substances and food or cooking utensils and take all necessary precautions to avoid contact with the skin. It is recommended to wear rubber or latex gloves and to adequately protect the eyes. It is recommended to thoroughly clean the skin at the end of the work shift with warm water and soap. The use of solvents is not recommended. Dry yourself with paper tablecloths. It is recommended to ventilate the work area.
These precautions are detailed in the Safety Data Sheets for the individual products and they must be referred to for complete information.

Notes



- The information and the recommendations relating to the application and end-use of Mastikol products, are given in good faith based on Mastikol's current knowledge and experience of the products when properly stored, handled and applied under normal conditions.
Mastikol cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production method mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof.
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Users should always refer to the most recent issue of the technical data sheet for the product concerned, copies of which will be supplied on request.