



# FAST SETTING URETHANE MID-FLEXIBILITY • HIGH-PEEL STRENGTH

PART NO. **PU5**

## DESCRIPTION

PU5 is a two-component, beige colored, extra fast-setting, structural urethane adhesive that is used for repairing and bonding urethane parts, thermoplastics, laminated surfaces, metal, leather, glass, and stone. It is rigid, impact resistant, and has good peel and shear strength in a DOUBLE/BUBBLE® 3.5 g Packet. PU5 displays an excellent combination of shear strength and peel strength, with good impact resistance.

## RECOMMENDED SUBSTRATES

Engineered thermoplastics, SMC, laminated surfaces and repair of reaction injection molded parts, metal, carbon steel, stainless steel, aluminum, tin, plastic, epoxy, polyester, phenolic, urethane, stone, glass, ceramic, leather.

## TYPICAL USES

Fast Setting Urethane can be used to repair urethane reaction injection molded parts. It is recommended for repair of rubber hoses, conveyor belts, flexible electrical connections, and bonding refrigeration and air-conditioning equipment.

## GENERAL PROPERTIES

Technology / Base	Polyurethane
Type of Product	Structural Adhesive
Components	Two-Component
Curing	Room Temperature (secondary thermal cure)
Appearance / Color	Beige
Consistency	Thick Viscous Liquid

## PACKAGING

The DOUBLE/BUBBLE® package is a handy, dual-pouch, one-shot, job-size packaging concept. It reduces the waste typically associated with the use of larger quantities of two-component adhesives. This unique packaging ensures that DOUBLE/BUBBLE® adhesives are always factory fresh and accurately portioned for optimum adhesive performance.

## CURING PROCESS

The cure schedule is dependent upon the temperature. The recommended cure schedule will vary with the desired properties.

## FEATURES & BENEFITS

- Excellent impact performance
- High shear and peel strength
- Fast setting time
- Bonds a wide variety of substrates.



## INSTRUCTIONS

The surface must be clean and dry before application. Remove all chemicals, dirt, wax, and oil.

Fold the DOUBLE/BUBBLE® package along the center seal, snip the end, squeeze out the contents, mix thoroughly and apply.



FOLD

SNIP

SQUEEZE

MIX/APPLY

Avoid contamination with oxidized metals (such as copper, brass, or mild steel), and rust or other metal oxides. The stability of the product is greatly reduced by materials such as strong acids or bases, sulfur compounds, amines, or reducing agents of any type. Surfaces to be bonded must be clean, dry and free from grease, oil, wax, weak oxide films, and other contaminants.

## HANDLING & CLEANUP

See SDS for handling and clean-up information.

## SAFETY & DISPOSAL

See SDS for safety and disposal information.

Store DOUBLE/BUBBLE® adhesives at room temperature in a dry environment. Extreme low temperatures may cause crystallization. Extreme high temperatures may degrade the properties.



## PHYSICAL PROPERTIES (UNCURED)

Rheology	Value	Condition/Method
Viscosity - Part A	18,000 cPs	at 25°C
Viscosity - Part B	4,000 cPs	at 25°C
Viscosity - Mixed	11,000 cPs	at 25°C
<b>Uncured Material Characteristics</b>		
Specific Gravity - Part A	1.11	N/A
Specific Gravity - Part B	1.47	N/A
Specific Gravity - Mix	1.26	N/A
Volume Mix Ratio	100 to 78	N/A
Weight Mix Ratio	100 to 100	N/A
Gel Time	4 min	at 25°C
Preparation Mass	4 gram	N/A
Handling Time	1 hour	N/A
Full Cure	24 hours	at 23°C
Alternate Cure	24 hours	at 25°C (77°F)
Cure Process Note	N/A	The cure schedule is dependent upon the temperature. The recommended cure schedule will vary with the desired properties.
Shelf Life	12 months	Unopened
<b>Mechanical Properties During Cure</b>		
Overlap Shear Strength		
15 min at 25°C	150 psi	Aluminum, Acid Etched at 25°C
30 min at 25°C	1000 psi	Aluminum, Acid Etched at 25°C
60 min at 25°C	1500 psi	Aluminum, Acid Etched at 25°C

## PHYSICAL PROPERTIES (CURED)

Cured Mechanical Properties	Value	Condition/Method
Hardness	80 to 85 Shore D	ASTM D2240
Tensile Strength	2645 psi	ASTM D638, 25°C 50% RH
Elongation at Break	122%	N/A
Overlap Shear Strength		
Aluminum, Acid Etched at 25°C	4296 psi	ASTM D1002, 25°C 50% RH
Aluminum, Acid Etched at -40°C	3569 psi	ASTM D1002, 25°C 50% RH
Aluminum, Acid Etched at 82°C	487 psi	ASTM D1002, 25°C 50% RH
Aluminum, Acid Etched at 149°C	361 psi	ASTM D1002, 25°C 50% RH
Tear Strength	800 pli	N/A
T-Peel Strength	15.1 pli	N/A
T-Peel Strength at -40°C	4.4 pli	N/A
T-Peel Strength at 82°C	4.5 pli	N/A
Operating Temperature	N/A	93°C (200°F)

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