

**BD6005 Low Surface Energy Plastic Bonding Structural
Adhesive**

1. DESCRIPTION

BD6005 is a two-part 1:1 mix ratio low odor methacrylate structural adhesive specifically formulated for bonding low surface energy plastics such as polyethylene and polypropylene. BD6005 features a 5 minute BD6005 comes preblended with 10mil glass beads to ensure a consistent bond-line in applications.

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2. CHARACTERISTICS:

Room Temperature Cure

- Working Time
- Fixture Time
- Can be Moved In
- Full Cure time
- Dispensing Temp.
- Flash Point

Properties

4 to 6 minutes (at 75°F/ 24°C)
60 to 90 minutes (at 75°F/ 24°C)
120 minutes
24 hours
65°F to 85°F (18°C to 30°C)
>200°F (93°C) – See SDS for more safety information

3. PHYSICAL PROPERTIES:

Uncured:

- Viscosity(cps)
- Color
- Mix Ratio (wt or vol)

Resin

50,000 – 100,000
Natural
1.0

Activator

30,000 to 60,000
Amber
1.0

4. MECHANICAL PROPERTIES:

Shear Strength

- Strength, psi

Substrate

HDPE

Results

1200

Failure Type

Cohesive

5. Suitable Substrates:

- LDPE
 - HDPE
 - Polypropylene
 - Fiberglass
 - ABS
- Steel
Aluminum
PMMA
Polycarbonate
TPO

6. HANDLING AND APPLICATION:

Contents include Methacrylate ester and acids. Keep containers closed after use. Wear gloves and safety glasses to avoid skin and eye contact. Wash with soap and water after skin contact. In case of eye contact, flush with water for 15 minutes and get medical attention. Harmful if swallowed. Keep out of the reach of children. Keep away from heat, sparks, and open flames. Refer to the BD6005 Safety Data Sheet for more complete safety instruction. To assure maximum bond strength, surfaces

must be mated together within the specified working time, and all clamps affixed within that time. Use sufficient material to ensure that the joint is completely filled when parts are mated and clamped. Avoid over clamping parts, which may cause a dry joint or a joint starved of adhesive. All adhesive application, part positioning, fixturing, and clamping should occur before the working time of the adhesive has expired. After the indicated working time, parts must remain undisturbed until the fixture time is completed. Components bonded, adhesive, and shop temperature can have a significant effect on the work and fixture time of the adhesive. Application of BD6005 adhesive at temperatures between 65°F and 85°F (18°C and 30°C) will ensure proper cure. Temperatures below 65°F (18°C) will slow cure and fixture speed. BD6005 adhesives will still react, but will take longer. Temperatures above 85°F (18°C and 30°C) will increase cure and fixture speeds, and there's a risk that the adhesive will be hardened or too thick to bond materials. The viscosities of BD6005 adhesives are affected by temperature.

7. HANDLING AND STORAGE

The shelf life of BD6005 is six (6) months from the date of manufacture based upon continuous storage at room temperature (77°F or 25°C). Storage of BD6005 adhesives in refrigerated compartments will extend the shelf life even more. Do not store BD6005 adhesive or any other adhesives in a refrigerator which has food or lunch products in them. Be sure to bring BD6005 adhesives to room temperature for 24 hours before use, otherwise longer cure and fixture times may be expected. Long-term storage at temperatures above room temperature will shorten the shelf life of BD6005 adhesives considerably. Storage at temperatures above 95°F or 35°C could shorten the shelf life to less than one month.

8. ADDITIONAL INFORMATION

NOTE: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. The Company shall not be liable for any injury, loss, or damage in the use or handling of its chemical products since conditions and use are beyond our control. In every case, we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and suitability for their particular purpose under their own operating conditions. Statements concerning possible use of our products are not intended as recommendations to use our products in the infringement of any patent, or for any particular purpose or application. These products are intended for industrial use only.