**Description**  
Plexus® MA530 is a two-part methacrylate adhesive designed for structural bonding of thermoplastic, metal, and composite assemblies. Combined at a 1:1 ratio, MA530 has a working time of 30 to 40 minutes and reaches approximately 500 psi in 90 minutes and 1000 psi in 160 minutes at 74°F (23°C). This product has been designed for use on large structures where a moderate open time product is needed. Plexus MA530 may be used for composite and metal bonding for small to large structures. In addition, this product provides a unique combination of excellent fatigue endurance, outstanding impact resistance, and superior toughness. Plexus MA530 is gray when mixed and is available in ready-to-use 400-ml cartridges, 5-gallon (20-liter) pails, or 50-gallon (200-liter) drums to be dispensed as a non-sagging gel.

| Characteristics | Room Temperature Cure | Chemical Resistance

**Excellent resistance to:**  
- Acids and Bases (pH 3-10)  
- Salt Solutions

**Susceptible to:**  
- Polar Solvents  
- Strong Acids and Bases

### Room Temperature Cure
- Working Time: 30 – 40 minutes
- Fixture Time: 90 – 160 minutes
- Operating Temperature: -40°F – 180°F (-40°C – 82°C)
- Gap Filling: 0.03 in. – 0.70 in. (0.75 mm – 18 mm)
- Mixed Density: 7.95 lbs/gal (0.95 g/cc)
- Flash Point: 51°F (11°C)

### Chemical Resistance

**Adhesive**  
- White: 130,000 - 180,000
- Black/White: 7.75 (0.93) – 7.95 (0.95)

**Activator**  
- Black/White: 7.95 (0.95) / 8.62 (1.03)

**Typical Physical Properties (uncured) – Room Temperature**

- Viscosity, cP: 130,000 - 180,000
- Color: White/Black/White
- Density, lbs/gal (g/cc): 7.75 (0.93) – 7.95 (0.95)
- Mix Ratio by Volume: 1.0
- Mix Ratio by Weight: 1.0
- Mixer Recommendation: Cartridge (400-mL): Stock # 30095 (MC 13-18) mix nozzle
- Bulk: See back & refer to ITW PANA

**Typical Mechanical Properties (Cured) – Room Temperature**

- Tensile (ASTM D638)
  - Strength, psi (MPa): 2,500 – 3,500 (17.2 – 24.1)
  - Modulus, psi (MPa): 80,000 – 120,000 (551.6 – 827.4)
  - Strain to Failure (%): 90 - 160

- Lap Shear (ASTM D1002)
  - Cohesive Strength, psi (MPa): 1,700 – 2,500 (11.7 - 17.2)

**Recommended for:**
- ABS  
- Acrylics  
- FRP  
- Gelcoats  
- PVC  
- Polysters (including DCPD modified)  
- Stainless Steel*  
- Aluminum*
- Styrenics  
- Urethanes (general)  
- Vinyl Esters

* Plexus Primer Suggested

**VOC’s**  
- During Cure (see back page): <1 (<10)

<table>
<thead>
<tr>
<th>Shelf Life</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk Adhesive (A Side)</td>
<td>7</td>
</tr>
<tr>
<td>Bulk Activator Black / White (B Side)</td>
<td>7 / 4</td>
</tr>
<tr>
<td>Cartridges: Mixed Gray / White</td>
<td>6 / 4</td>
</tr>
</tbody>
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* See back for effect of temperature on Storage and Use

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**Typical Exotherm Curve for MA530 (30g mass) at Various Ambient Temperatures**

- Exotherm temp (°C)
- Exotherm temp (°F)
- Exotherm time (min)
SAFETY & HANDLING: Plexus® adhesive (Part A) and activator (Part B) are flammable. Contents include methacrylate esters. 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 reach of children. Keep away from heat, sparks, and open flames. For more complete heath and safety information, contact ITW PANA for a Material Safety Data Sheet (MSDS).

NOTE: Because of the rapid curing features of this product, a large amount of heat may be generated when large masses of material are mixed at one time. Further, the heat generated by the exotherm resulting from the mixing of large masses of this system can result in the release of entrapped air, steam, and volatile gases. To prevent this, dispense only enough material as needed for the application and for use within the working time of the product and confine gap thickness to no more than its maximum gap fill capability. Questions relative to handling and applications should be directed to ITW PANA at 855-489-7262.

DISPENSING ADHESIVE AND APPLICATION: Plexus Adhesives may be applied manually or with all stainless steel bulk dispensing equipment. Automated applications may be accomplished with a variety of 1-to-1 meter mix equipment delivering both components to a static mixer. Avoid contact with copper or copper-containing alloys in all fittings, pumps, etc. Seals and gaskets should be made of Teflon, Teflon-coated PVC foam, ethylene/propylene, or polyethylene. Avoid the use of Viton, BUNA-N, Neoprene, or other elastomers for seals and gaskets. For more information, contact ITW PANA. To assure maximum bond strength, surfaces must be mated within the specified working time. Use sufficient material to ensure the joint is completely filled before the adhesive has cured. Citrus terpene or N-methyl pyrrolidone (NMP) containing cleaners, degreasers, and soap and water can be used for best results. If the adhesive is already cured, careful scraping, followed by a wiping with a cleaning agent, may be the most effective method of clean up.

EFFECT OF TEMPERATURE: Application of adhesive at temperatures between 65°F (18°C) and 85°F (30°C) will ensure proper cure. Temperatures below 65°F (18°C) or above 85°F (30°C) will slow down or increase cure rate significantly. Temperature affects viscosities of Parts A and B of this adhesive. To ensure consistent dispensing in meter-mix equipment, adhesive and activator temperatures should be held reasonably constant throughout the year. Adhesive in cured state behaves differently at elevated and low temperatures. See ITW PANA for specific values.

STORAGE AND SHELF LIFE: Shelf Life is based on steady state storage between 55°F and 77°F (13°C and 25°C). Exposure, intermittent or prolonged, above 80°F (27°C) will result in a reduction of the stated shelf life. Exposure above 100°F (38°C) can quickly degrade shelf life and should be avoided. Shelf life may be extended by cool storage between 45°F and 65°F (7°C and 18°C). If stored cold, allow product to return to room temperature before using.

PRODUCT USE: Many factors beyond ITW PANA control and uniquely within user’s knowledge and control can affect the use and performance of an ITW PANA product in a particular application. Given the variety of factors that can affect the use and performance of an ITW PANA product, the end user is solely responsible for evaluating any ITW PANA product and determining whether it is fit for a particular purpose and suitable for user’s design, production, and final application.

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