Inspired Bonding
Solutions for Transportation
PLEXUS
Plexus is a brand of ITW Performance Polymers, a global supplier of chemical solutions targeting industrial manufacturers. We work closely with our customers to provide them with value-added solutions, and are committed to the continuous delivery of superior technical support and expertise, premium quality products and ongoing R&D initiatives.

QUALITY POLICY
Plexus is committed to constantly meeting customers’ requirements by providing consistently high quality products and services and by encouraging continuous improvements in long-term and daily operations.

REACH
Plexus has successfully pre-registered all substances in its products eligible under EU REACH legislation. Substance registration, where appropriate, will continue to be our focus to remain compliant with EU REACH regulations. We are committed to provide a greater responsibility to industry by managing the risks from chemicals and communicating safety information on the substances within our supply chain.

ISO CERTIFIED
Plexus is ISO 9001 and ISO 14001 certified and we ensure that our products and process management conform to meet the standard requirements.

WE WORK CLOSELY WITH OUR CUSTOMERS

PLEXUS
Our patented structural adhesives bond nearly all thermoplastics, metals and composite materials providing extremely durable bonds with little or no surface preparation. A proven record and outstanding performance in the most demanding applications make Plexus adhesives a viable and competitive alternative to both polyurethane and epoxies.

Would you like to improve your productivity and create better value products? The answer could be in your structural adhesive. The Plexus team understands how demanding today’s production environments can be, that's why we take pride in providing you with options and innovative solutions, regardless of the industry you are in.

CORE SHELL TECHNOLOGY
Enhanced resistance to fracture, impact, fatigue and thermal stress

The ability of Plexus structural methacrylate adhesives to absorb energy without catastrophic failure is achieved by our patented core-shell impact modifiers.

Plexus Core Shell technology offers resistance to high peel strengths, cracking, fatigue and thermal stresses with no sacrifice to other properties.

Our commitment to quality is delivered in every adhesive system we produce, providing our customers with confidence in the reliability and consistency of our products.

INSPIRED BONDING SOLUTIONS
Plexus is world renowned for manufacturing and distributing highly engineered fastening, joining and sealing technologies.

PROFESSIONAL SUPPORT AND TECHNICAL SERVICES
Plexus specialists provide full support and service for our customer’s technical requirements

• Advice and recommendations based on the customers unique application requirements
• Fully equipped laboratory for testing the customer’s own substrates
• Continuous improvement to existing products
• New groundbreaking product developments

Due to the many potential variations in substrates and surface chemistries, Plexus strongly recommends all substrates be tested with the selected adhesive in the anticipated service condition to determine suitability.
## METALS, PLASTICS AND COMPOSITES

<table>
<thead>
<tr>
<th>Adhesive</th>
<th>Description</th>
<th>Mixed Color</th>
<th>Mix ratio (by volume)</th>
<th>Viscosity (cPs)</th>
<th>Working time (mins)</th>
<th>Fixtute time (mins)</th>
<th>Shear strength (MPa)</th>
<th>Tensile elongation (%)</th>
<th>Gap fill (mm)</th>
<th>Metals</th>
<th>Plastics</th>
<th>Composites</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA300</td>
<td>All purpose, High Strength</td>
<td>Black, Cream</td>
<td>1:1</td>
<td>A: 40,000 - 70,000</td>
<td>3 - 6</td>
<td>12 - 15</td>
<td>20.7 - 29.2</td>
<td>5 - 15</td>
<td>3.2</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>MA310</td>
<td>High strength use with &quot;difficult to bond&quot; plastics</td>
<td>Cream</td>
<td>1:1</td>
<td>A: 40,000 - 70,000</td>
<td>15 - 18</td>
<td>45 - 55</td>
<td>20.7 - 24.1</td>
<td>5 - 15</td>
<td>3.2</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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</tr>
<tr>
<td>MA320</td>
<td>Excellent low temperature, toughness properties</td>
<td>Black, Cream, White</td>
<td>10:1</td>
<td>A: 125,000 - 175,000</td>
<td>8 - 12</td>
<td>25 - 30</td>
<td>10.3 - 13.8</td>
<td>20 - 50</td>
<td>9.5</td>
<td>✔️</td>
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<tr>
<td>MA440</td>
<td>All purpose, high toughness</td>
<td>Black, Blue, Cream</td>
<td>10:1</td>
<td>A: 100,000 - 125,000</td>
<td>4 - 6</td>
<td>18 - 22</td>
<td>20.7 - 29.2</td>
<td>30 - 50</td>
<td>9.5</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>MA422</td>
<td>All purpose, medium open time</td>
<td>Blue</td>
<td>10:1</td>
<td>A: 100,000 - 130,000</td>
<td>17 - 24</td>
<td>35 - 40</td>
<td>11 - 15.9</td>
<td>75 - 100</td>
<td>9.5</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>MA425</td>
<td>All purpose, long open time</td>
<td>Blue</td>
<td>10:1</td>
<td>A: 100,000 - 125,000</td>
<td>30 - 35</td>
<td>80 - 90</td>
<td>11.7 - 17.9</td>
<td>110 - 150</td>
<td>9.5</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>MA530</td>
<td>All purpose, high strength, high toughness, medium open time</td>
<td>Gray</td>
<td>1:1</td>
<td>A: 130,000 - 180,000</td>
<td>30 - 40</td>
<td>90 - 160</td>
<td>11.7 - 17.2</td>
<td>90 - 160</td>
<td>18</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>MA550</td>
<td>Excellent marine adhesive, white, UV stable</td>
<td>White</td>
<td>10:1</td>
<td>A: 130,000 - 180,000</td>
<td>40 - 50</td>
<td>70 - 75</td>
<td>8.9 - 12.4</td>
<td>40 - 80</td>
<td>10</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>MA560.1</td>
<td>All purpose, high strength/toughness, long open time</td>
<td>Gray</td>
<td>1:1</td>
<td>A: 145,000 - 185,000</td>
<td>55 - 70</td>
<td>220 - 240</td>
<td>11.7 - 17.2</td>
<td>&gt;130</td>
<td>25</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>MA590</td>
<td>All purpose, high strength/toughness, long open time</td>
<td>Gray</td>
<td>1:1</td>
<td>A: 140,000 - 230,000</td>
<td>90 - 105</td>
<td>250 - 380</td>
<td>10.3 - 17.2</td>
<td>&gt;130</td>
<td>38</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>MA530</td>
<td>All purpose, high strength/toughness, no primer metal bonding</td>
<td>Gray</td>
<td>10:1</td>
<td>A: 80,000 - 120,000</td>
<td>4 - 6</td>
<td>15 - 25</td>
<td>13.8 - 19.3</td>
<td>30 - 60</td>
<td>13</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>MA832</td>
<td>All purpose, high strength/toughness, no primer metal bonding</td>
<td>Gray</td>
<td>10:1</td>
<td>A: 80,000 - 130,000</td>
<td>12 - 16</td>
<td>55 - 60</td>
<td>13.8 - 19.3</td>
<td>30 - 60</td>
<td>12</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>MA8110</td>
<td>Next generation multi-material bonder</td>
<td>Gray</td>
<td>1:1</td>
<td>A: 40,000 - 80,000</td>
<td>8 - 12</td>
<td>35 - 50</td>
<td>Plastics: 12.4 - 16.5</td>
<td>Metals: 16.6 - 20.7</td>
<td>40 - 70</td>
<td>12.7</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>MA8120</td>
<td>Next generation multi-material bonder</td>
<td>Gray</td>
<td>1:1</td>
<td>A: 40,000 - 80,000</td>
<td>18 - 22</td>
<td>75 - 90</td>
<td>Plastics: 12.4 - 16.5</td>
<td>Metals: 16.6 - 20.7</td>
<td>50 - 80</td>
<td>12.7</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>MA920</td>
<td>Low odor, all purpose, high toughness</td>
<td>Blue</td>
<td>10:1</td>
<td>A: 80,000 - 120,000</td>
<td>4 - 6</td>
<td>15 - 18</td>
<td>10.3 - 15.2</td>
<td>80 - 100</td>
<td>9.5</td>
<td>✔️</td>
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<tr>
<td>MA1020</td>
<td>Low shrinkage, low odor, all purpose</td>
<td>Blue</td>
<td>10:1</td>
<td>A: 100,000 - 130,000</td>
<td>4 - 6</td>
<td>15 - 20</td>
<td>8.6 - 11</td>
<td>90 - 110</td>
<td>9.5</td>
<td>✔️</td>
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<tr>
<td>MA1025</td>
<td>Low shrinkage, low odor, bond lines up to 1&quot; thick</td>
<td>Blue</td>
<td>10:1</td>
<td>A: 180,000 - 220,000</td>
<td>20 - 25</td>
<td>40 - 45</td>
<td>8.3 - 13.8</td>
<td>90 - 110</td>
<td>25</td>
<td>✔️</td>
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<tr>
<td>MA2045</td>
<td>Non sag, medium work time, high gap fill, up to 1.5&quot;</td>
<td>Blue</td>
<td>10:1</td>
<td>A: 180,000 - 220,000</td>
<td>40 - 45</td>
<td>100 - 130</td>
<td>11 - 15.2</td>
<td>90 - 125</td>
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<td>✔️</td>
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</tr>
<tr>
<td>MA2050</td>
<td>Non sag, long work time, high gap fill, up to 1.5&quot;</td>
<td>Blue</td>
<td>10:1</td>
<td>A: 180,000 - 220,000</td>
<td>80 - 100</td>
<td>190 - 230</td>
<td>11 - 15.2</td>
<td>90 - 120</td>
<td>38</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>MA3940</td>
<td>Use with corrosive plastics</td>
<td>Cream</td>
<td>10:1</td>
<td>A: 125,000 - 175,000</td>
<td>12 - 15</td>
<td>25 - 30</td>
<td>9.7 - 13.8</td>
<td>125 - 175</td>
<td>9.5</td>
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<td>✔️</td>
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<tr>
<td>MA3940LH</td>
<td>All purpose fast setting adhesive</td>
<td>Blue</td>
<td>10:1</td>
<td>A: 120,000 - 160,000</td>
<td>4 - 5</td>
<td>8 - 10</td>
<td>6.3 - 11</td>
<td>75 - 100</td>
<td>4</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

The above list represents a portion of the Plexus adhesives product line. Others are available that may suit your needs. Please consult ITW Performance Polymers for further assistance. Above values are subject to change. Please see the product TDS for most up to date product information and our SDS for all health and safety information at www.itwpp.com
MARINE
Within the Marine industry, Plexus structural adhesives can help increase production speed and reduce dust emissions as they require little or no surface preparation. Plexus adhesives are widely used for applications such as composite stringers, liners and deck to hull bonding by a variety of companies, including: Sunseeker International, Formula Fastech and Victory Team.

TRANSPORT
Reliability combined with the ease of use of Plexus adhesives have always been appreciated by rail, bus and truck companies. Alstom, Bombardier, Volvo, Virgin and many other manufacturers are choosing Plexus for bonding floating floors and modular washrooms in railway carriages, composite body panels in buses and coaches as well as doors, headlamp surrounds and front grills for trucks.

AUTOMOTIVE
Ford, GM, Chrysler and Land Rover are some of the key automotive OEM’s using Plexus for bonding bumpers, spoilers, dashboards, body panels, front grills and many other applications. Being fully regrind compatible, Plexus makes it easier to recycle plastic components, eliminating the need of cutting out the joints.

WIND ENERGY
The high strength bonds achieved by Plexus adhesives on virtually all polyester resins, gelcoats, engineered thermoplastics and metals has helped change the way the wind turbine industry designs and builds. The specialist structural adhesives are extensively used in the manufacture and repair of wind blades, turbine housing assemblies and lightening suppression systems.

ENGINEERED CONSTRUCTION
Plexus adhesive solutions are tailored to meet the specific production requirements in a variety of construction applications. Plexus has a proven track record in bonding composite and thermoplastic doors, GRP architectural features, pultruded bridges and GRP tanks in numerous projects all over the world.

AGRICULTURAL
Plexus structural adhesives help agricultural machinery manufacturers to reduce production costs, streamline the assembly processes and ultimately improve overall machinery performance. Plexus works in partnership with our customers throughout their design and production process to find the right structural adhesives fit for the conditions and environmental rigors.

• Outperforms laminated joints
• Reduces cracking and crazing of gelcoats
• Gap filling up to 38 mm
• Faster and easier assembly including ability to hand mix
• Rapid cure at room temperature reduces production time
• Resistant to oil and diesel
• Bonding of dissimilar substrates
• Excellent fatigue resistance
• Speeds production
• Bonds dissimilar substrates
• High strength & durability
• Proven application history
• Chemically Fuse Composites
• Superior bond strength and fatigue resistance
• Decrease assembly costs
• High strength and durability
• Room temperature curing
• Superior performance bonding dissimilar substrates
• Working and fixture times to suit all your applications
• Excellent chemical resistance
• Bonding of dissimilar substrates
• Variety of working and fixture times
• Resistant to oil and diesel
• Superior impact resistance
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