

# Permabond®

ISO 9001 Certified  
"Our Science ... Your Success"

## Polyolefin Bonding Structural Acrylic Adhesives

The Permabond TA46XX range has been developed to bond untreated polyolefin surfaces. These adhesives are ideal for bonding **polypropylene and polyethylene** - without the need to carry out costly surface pre-treatment before bonding. They can also be used to bond polyolefins to a wide variety of other substrate materials.



*Untreated polypropylene lap shears bonded with TA4610. The adhesive bond is so strong the plastic stretches, deforms, and fails before the bonded joint.*

### Permabond® Polyolefin Bonders (TA4600 Series) Features and Benefits

- Bond low surface energy plastics
- No need to flame, corona, or plasma treat surfaces before bonding = cost and process saving
- Easy 1:1 mix ratio - can be manually applied or used with automatic dispensing equipment
- Non-hazardous for transport = easier shipping and storage
- Ideal for bonding a wide range of surfaces
- Cartridges with static mix nozzles for ease of dispensing - bulk available on request
- Full cure at room temperature
- Good chemical resistance
- Good impact strength

#### Ideal for bonding:

Composites

E- Coatings

EPDM

HDPE

LDPE

Most Metals

Polyethylene

Polypropylene

PTFE

UHMW



*See product details on the next page.*

**Permabond®**  
Engineering Adhesives

# Polyolefin Bonding Structural Acrylic Adhesives

This table represents a small selection of Permabond adhesives. For more detailed technical information and product Safety Data Sheets, visit [www.permabond.com](http://www.permabond.com). To discuss your specific application requirements, contact us 800-640-7599 and our technical advisors will recommend the best adhesive for your application.

Structural Acrylic Polyolefin Bonders				
Grade	TA4605	TA4610	TA4611	TA4631
Appearance	A: Off-white B: Almost colorless Mixed: Off-white	A: Off-white B: Almost colorless Mixed: Off-white	A: White B: Transparent Mixed: Off-white	A: White B: White Mixed: White
Features	Fast cure	Fast cure for large components	Smaller gap fill (no micro beads)	Low odor, smaller gap fill (no micro beads)
Viscosity @ 25°C	Mixed: 125,000 cPs	Mixed: 210,000 cPs	Mixed: 21,500 cPs	Mixed: 21,500 cPs
Mix Ratio	1:1	1:1	1:1	1:1
Fixture Time	5-10 minutes	12-15 minutes	10-16 minutes	12-18 minutes
Handling Time	20-25 minutes	40-50 minutes	40-50 minutes	40-50 minutes
Working Strength	2-4 hours	6-8 hours	6-8 hours	6-8 hours
Shear Strength Polypropylene	>8 N/mm <sup>2</sup> (>1200 psi) Substrate Failed	>8 N/mm <sup>2</sup> (>1200 psi) Substrate Failed	>8 N/mm <sup>2</sup> (>1200 psi) Substrate Failed	>8 N/mm <sup>2</sup> (>1200 psi) Substrate Failed
Shear Strength Polyethylene	>7 N/mm <sup>2</sup> (>1015 psi) Substrate Failed	>7 N/mm <sup>2</sup> (>1015 psi) Substrate Failed	>7 N/mm <sup>2</sup> (>1015 psi) Substrate Failed	>7 N/mm <sup>2</sup> (>1015 psi) Substrate Failed
Service Temp	-55 to +100°C	-55 to +100°C	-55 to +100°C	-55 to +100°C
Packaging Cartridges*	10 x 50ml	10 x 50ml	15 x 25ml & 10 x 50ml	15 x 25ml & 10 x 50ml
	6 x 400ml	6 x 400ml	6 x 400ml	6 x 400ml
Storage	5-25°C (41 to 77°F)	5-25°C (41 to 77°F)	5-25°C (41 to 77°F)	5-25°C (41 to 77°F)

\*Bulk available upon request

*This is a partial listing of available products.  
Contact Permabond with your requirements for optimum adhesive selection.*



FLYER\_TA46005\_Series 120920

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