Ideal for bonding:

Acetal (POM)

Permabond®

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
- Excellent water resistance
- 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



Composite

E-Coating

HDPE

LDPE

Metal

PEEK

PET

Polyethylene

Polypropylene

PTFE

Rubber

UHMW

See product details on the next page.



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. 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/mm² (>1200 psi) Substrate Failed	>8 N/mm² (>1200 psi) Substrate Failed	>8 N/mm² (>1200 psi) Substrate Failed	>8 N/mm² (>1200 psi) Substrate Failed
Shear Strength Polyethylene	>7 N/mm² (>1015 psi) Substrate Failed	>7 N/mm² (>1015 psi) Substrate Failed	>7 N/mm² (>1015 psi) Substrate Failed	>7 N/mm² (>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 100721

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