

# Anaerobics

The Permabond range of anaerobic adhesives is formulated to provide superior performance benefits in applications with self-supporting or closely-mating metallic components such as retaining bearings, threadlocking, flange sealing, gasketing and sealing pipe work.

## *How do Permabond anaerobic adhesives work?*

Permabond anaerobic adhesive formulations are designed to cure when air is absent and metal surfaces (both ferrous and non-ferrous) are present. The liquid adhesive fills imperfections in the metal surfaces and gaps between the mated parts. The adhesive then rapidly cures to an inert acrylic adhesive/sealant creating a solid 100% mechanical surface-to-surface contact and physical lock.

### *Retaining Compounds:*

- Enhanced torque resistance over mechanical joining.
- 5 times greater load carrying capacity than mechanical jointing methods.
- Greater design freedom through possibility of joining dissimilar materials.
- Protection against corrosion.
- Reduced machining tolerances in part design.
- 100% surface-to-surface contact, thus improving strength and vibration resistance.

### *Threadlocking:*

- Fast cure speeds for quick pressure testing.
- Dismantleable and permanent threadlocking that increases project versatility.
- 100% leak-free seal, even with mis-threaded fittings.

- Protection against corrosion.

- Wicking sealants to penetrate tight fitting or pre-assembled parts.



## *Pipe Sealing*

- PTFE based formulations for durable, long-term sealing.
- Inert cured material; resistant to acids, solvents and glycol based products.
- Multiple viscosities; to seal both fine and coarse threads.
- Fast cure speeds for quick pressure testing; instantly sealing to 1000psi (70bar).
- Dismantleable and permanent sealants that increase project versatility.
- 100% leak-free pipe sealing even with mis-threaded pipes.
- Final cure strength that exceeds that of most pipe materials.

## *Gasketing*

- Fast cure and high strength that eliminates flange re-tightening.
- A full range of viscosities for various gap-filling requirements.
- Fast cure speeds for quick pressure testing
- High-temperature resistant products available.
- Dismantleable and permanent gasketing grades, expanding project versatility.
- Excellent flexural and vibration tolerance with no loss in seal integrity.

# Benefits

- Liquid adhesive provides greater surface-to-surface contact than mechanical fasteners.
- Quick curing without air; accelerates assembly rates.
- Resistant to oils, solvents and other surface treatments.
- Available in permanent and removable formulations.
- Superior bond strength; often exceeds that of substrate material.
- Wide temperature range; from 55 to 150°C (-65 to 300°F)
- Gap fill capability from interference fits up to 0.5mm (0.02").
- Seals, bonds and locks with one product.

**Permabond**<sup>®</sup>  
Engineering Adhesives

	Grade	Colour	Visc. mPa.s = cP	Maximum Gap Fill (mm) in	Set time, Steel mins	Shear Strength, Steel (N/mm2) psi	Torque, M10 Steel nuts and bolts		Service Temp. (°C) °F	Availability
							Breakaway (N.m) in.lb	Prevail (N.m) in.lb		
Threadlockers	A011	Red	500	(0.12) 0.005	15	(5) 750	(4) 60	(3) 25	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A1042	Blue	8,000	(0.12) 0.005	5	(12) 1700	(16) 140	(7) 60	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A113	Blue	500	(0.12) 0.005	15	(12) 1700	(16) 140	(7) 60	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A130	Blue	8,000	(0.12) 0.005	15	(12) 1700	(16) 140	(7) 60	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	HH120	Red	7,000	(0.25) 0.01	10	(17) 2500	(31) 275	(34) 300	(-55 to 150) -65 to 300	Americas & Asia
	HH131	Red	10,000	(0.3) 0.012	15	(17) 2500	(27) 240	(54) 480	(-55 to 230) -65 to 445	Worldwide
	HL126	Green	12	(0.12) 0.005	8	(10) 1500	(14) 125	(34) 300	(-55 to 150) -65 to 300	Americas & Asia
	HM118	Red	1,800	(0.2) 0.008	10	(17) 2500	(23) 200	(32) 280	(-55 to 150) -65 to 300	Americas & Asia
	HM128	Red	500	(0.15) 0.006	5	(17) 2500	(31) 275	(40) 350	(-55 to 150) -65 to 300	Americas & Asia
	HM129	Red	500	(0.15) 0.006	10	(17) 2500	(32) 280	(56) 500	(-55 to 150) -65 to 300	Worldwide
	LM113	Purple	1,200	(0.15) 0.006	15	(5) 750	(9) 80	(5) 40	(-55 to 150) -65 to 300	Americas & Asia
	MM115	Blue	1,300	(0.15) 0.006	10	(10) 1500	(16) 140	(7) 60	(-55 to 150) -65 to 300	Americas & Asia
	MM115 Pure	Colorless	1,300	(0.15) 0.006	10	(10) 1500	(16) 140	(7) 60	(-55 to 150) -65 to 300	Americas & Asia
Retaining Compounds	A025	Orange	750	(0.2) 0.008	15	(8) 1200	(26) 225	(46) 410	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A1046	Green	9,000	(0.25) 0.01	5	(25) 3600	(33) 290	(58) 520	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A118	Green	500	(0.12) 0.005	15	(21) 3000	(33) 290	(58) 520	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A126	Green	30	(0.05) 0.001	15	(21) 3000	(33) 290	(58) 520	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A134	Green	70,000	(0.5) 0.02	15	(21) 3000	(33) 290	(58) 520	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	F200	Brown	200	(0.1) 0.004	15	(30) 4400	(33) 290	(58) 520	(-55 to 100) -65 to 215	Europe, Middle East & Australia
	F201	Brown	9,000	(0.2) 0.008	15	(30) 4400	(33) 290	(58) 520	(-55 to 100) -65 to 215	Europe, Middle East & Australia
	F202	Brown	135,000	(0.5) 0.02	15	(30) 4400	(33) 290	(58) 520	(-55 to 100) -65 to 215	Europe, Middle East & Australia
	HH040	Green	5,000	(0.25) 0.01	15	(14) 2000	(23) 200	(34) 300	(-55 to 150) -65 to 300	Americas & Asia
	HH040 Pure	Colorless	5,000	(0.25) 0.01	15	(14) 2000	(23) 200	(34) 300	(-55 to 150) -65 to 300	Americas & Asia
	HH167	Silver	500,000	(0.5) 0.02	15	(32) 4700	(32) 280	(45) 400	(-55 to 150) -65 to 300	Worldwide
	HL138	Green	150	(0.127) 0.005	10	(16) 2300	(20) 180	(36) 320	(-55 to 150) -65 to 300	Americas & Asia
	HM135	Green	500	(0.2) 0.008	5	(30) 4400	(38) 340	(65) 575	(-55 to 200) -65 to 390	Europe, Middle East & Australia
	HM160	Green	600	(0.203) 0.008	10	(21) 3000	(28) 250	(45) 400	(-55 to 177) -65 to 350	Americas & Asia
	HM161	Green	2,000	(0.25) 0.01	10	(24) 3500	(31) 275	(45) 400	(-55 to 177) -65 to 350	Americas & Asia
	HM162	Green	800	(0.2) 0.008	5	(30) 4400	(32) 280	(62) 550	(-55 to 200) -65 to 390	Worldwide
	HM163	Green	4,000	(0.5) 0.02	5	(28) 4000	(40) 350	(70) 620	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	HM165	Green	10,000	(0.3) 0.012	15	(26) 3800	(28) 250	(54) 480	(-55 to 230) -65 to 445	Worldwide

	Grade	Colour	Visc. mPa.s = cP	Maximum Gap Fill (mm) in	Set time, Steel mins	Shear Strength, Steel (N/mm <sup>2</sup> ) psi	Torque, M10 Steel nuts and bolts		Service Temp. (°C) °F	Availability
							Breakaway (N.m) in.lb	Prevail (N.m) in.lb		
Thread Sealers	A1044	White	70,000	(0.5) 0.02	15	(17) 2500	(24) 210	(12) 105	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A1058	White	300,000	(0.5) 0.02	90	(8) 1200	N/A	N/A	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A129	Orange	65,000	(0.5) 0.02	15	(12) 1700	(12) 105	(5) 40	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	A131	White	40,000	(0.5) 0.02	45	(6) 870	(10) 90	(4) 35	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	LH050	White	250,000	(0.5) 0.02	120	(7) 1000	(4) 35	(3) 25	(-55 to 177) -65 to 350	Americas & Asia
	LH050 Pure	White	250,000	(0.5) 0.02	120	(7) 1000	(4) 35	(3) 25	(-55 to 177) -65 to 350	Americas & Asia
	LH051	White	250,000	(0.5) 0.02	120	(7) 1000	(4) 35	(3) 25	(-55 to 177) -65 to 350	Americas & Asia
	LH054	White	260,000	(0.5) 0.02	120	(7) 1000	(3) 25	(2) 20	(-55 to 177) -65 to 350	Americas & Asia
	LH150	White	260,000	(0.5) 0.02	120	(7) 1000	(4) 35	(3) 25	(-55 to 177) -65 to 350	Americas & Asia
	LM012	Brown	2,000	(0.2) 0.008	30	(5) 750	(3) 25	(2) 15	(-55 to 177) -65 to 350	Americas & Asia
Gasketmakers	MH052	Yellow	50,000	(0.5) 0.02	15	(10) 1400	(20) 180	(11) 100	(-55 to 150) -65 to 300	Worldwide
	A136	Red	75,000	(0.5) 0.02	45	(12) 1700	N/A	N/A	(-55 to 150) -65 to 300	Europe, Middle East & Australia
	HH190	Purple	600,000	(0.6) 0.025	15	(6) 900	N/A	N/A	(-55 to 121) -65 to 250	Americas & Asia
	LH197	Green	37,000	(0.3) 0.012	20	(5) 750	N/A	N/A	(-55 to 150) -65 to 300	Worldwide
	MH196	Red	150,000	(0.5) 0.02	15	(10) 1500	N/A	N/A	(-55 to 200) -65 to 390	Worldwide
Activators	MH199	Red	185,000	(0.5) 0.02	20	(8) 1100	N/A	N/A	(-55 to 200) -65 to 390	Worldwide
	A905	Green	2	N/A	N/A	N/A	N/A	N/A	N/A	Europe, Middle East & Australia
	ASC10	Green	2	N/A	N/A	N/A	N/A	N/A	N/A	Americas & Asia

### Permabond Worldwide

Wherever your manufacturing or R&D site may be located, Permabond representatives can be called upon to assist you. We have an extensive network of professional distributors worldwide.



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