PROTAC®
Engineering Adhesives, Industrial Sealants

Protac 5874 Multi Gasket

Product description

Protac 5874 is a single component, low-medium strength, anaerobic gasketing compound. 5874 is a thixotropic product that cures quickly on steel surfaces. Protac 5874 cures when confined in the absence of air between close-fitting flat metal surfaces.

Typical applications

Protac 5874 is a 'form-in-place' gasketing product designed for multi-purpose applications on rigid metal flanges and surfaces, e.g. gearbox casings, machinery covers, pump housings, compressor end caps, etc. Protac 5874 cures quickly on steel surfaces and develops low-medium strength. 5874 will give an almost instant low pressure seal (up to 0.5 bar after 20mins.) to allow on-line pressure testing.

Properties of material

Chemical type	Di-Methacrylate
Appearance	Orange
Specific Gravity	1.10
Viscosity cPs(Range)[1]	18,500-80,000
Typical value	80,000
Viscosity cPs (Range)[2]	12,000 – 25,000
Typical value	18,500
Shear strength[3] ($N.mm^2$)	1.5 - 6.0
Fixture Time[4]	20
Full Cure @20°C (hours)	24
Flash Point (°C)	>100
Shelf Life @ 20°C (months)	12
Max Gap Fill (mm)	0.35
Operating Temp Range (°C)	-50 to +150

1 Brookfield RVT, spindle 6, 2.5rpm
2 Brookfield RVT, spindle 6, 20rpm
3 On M10 black oxide steel bolt and M10 bright steel nut, ISO10964
4 ISO 10964

Typical curing speed, % of final strength:-
15 mins Finger tight
1 hour~ 30% strength
24 hours 100% strength

Cure speed vs. substrate

Cure speed and strength vary according to the substrates. When used on mild steel and brass components anaerobic adhesives will reach full cure faster than more inert materials such as stainless steel and zinc dichromate. Protac AC32 activator may be used to accelerate cure speed.

Cure speed vs. bond gap

The size of the bond gap greatly affects the speed of cure of anaerobic adhesives. Bond gap varies with thread type and size of the fastener. The larger the gap between threads, the slower the cure speed. Maximum recommended gap for 5874 is 0.35mm.

Cure speed vs. temperature	All figures relating to cure speed are tested at 22°C. Lower temperatures will result in slower cure. Heating the assembled parts accelerates the curing process. Activator AC32 should be used when the temperature is less than 5°C.
Typical environmental resistance	
Hot strength	Protac 5874 is suitable for use at temperatures up to 150°C. At 130°C the bond strength will be ~25% of the strength at 22°C.
Heat ageing	Protac 5874 retains ~90% full strength when heated to 100°C for 90 days then cooled and tested at 22°C.
Chemical / Solvent Resistance	Protac anaerobics exhibit excellent chemical resistance to most oils and solvents including motor oil, leaded petrol, brake fluid, acetone, ethanol, propanol and water. Anaerobic adhesives are not recommended for use in pure oxygen or chlorine lines.
General information	For safe handling of this product consult the Material Safety Data Sheet. Anaerobic adhesives only cure in the absence of air and with metal part activation. Adhesive outside the joint will remain uncured and may be wiped away with a cloth. 5874 is suitable for high strength retaining applications that require medium gap filling. 5874 is not recommended on certain plastics as stress cracking can sometimes result. Some anti-corrosion chemicals inhibit the cure system in this type of anaerobic. Trials are recommended to establish whether cleaning of the parts is necessary. AC32 Activator may be required on plated parts.
Directions for use	Ensure parts are clean, dry and free from oil and grease. Apply adhesive to all engaged threads. Assemble parts and allow to cure. Wipe excess adhesive from outside of joint.
Storage	Store in a cool area out of direct sunlight. Refrigeration to 5°C gives optimum storage stability.
Packaging	Tubes: 50ml and 250ml. Available in bulk for use with dispensing systems.
Data ranges	The data contained in this data sheet may be reported as typical value and/or range. Values are based on actual test data and are verified on a regular basis.

Notes

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