



Technical Data Sheet

B648 High Temperature Retainer

December 2021

PRODUCT DESCRIPTION

B648 High Temperature Retainer is a low viscosity compound designed for bonding cylindrical fitting parts where high-temperature resistance is required. Tolerates minor surface contaminations from various oils and protection fluids. Typical applications include fixing gears/sprockets onto gearbox shafts and rotors on electric motor shafts.

RETAINING COMPOUNDS

Bondloc Retaining Compounds have an anaerobic cure system, meaning it cures in the absence of air and the presence of metal ions. The resin remains liquid until it is confined between metal parts. Using Bondloc Retainers when mounting cylindrical parts has distinct advantages over mechanical assemblies. Using retaining compounds allows a manufacturer to use slip-fitted parts with relaxed machining tolerances.

ANAEROBIC KEY FEATURES

- Increase assembly reliability
- Eliminate backlash in keys and splines
- Increase the strength of heavy press fits
- Eliminate fretting corrosion
- Seal against environmental corrosion
- Eliminate high assembly stresses
- Reduce variations in load transmission.

TECHNICAL FEATURES

Base technology	Urethane methacrylate
Colour	Green (UV Positive)
Cure	Anaerobic
Cure speed without Activator	10-15 mins @ 22°C
Cure speed with Activator	<5 mins @ 22°C
Viscosity Brookfield Sp2@20rpm@25°C	400-600 cps
Gap fill	0.15mm
Shelf Life	24 months @ 22°C
Specific Gravity ASTM D1475-13 (2020)	1.06
Temperature Range	-55°C to +180°C

TEST PERFORMANCE

Full Cure Time	2-6 hours @ 22°C
Static Strength – ISO 4587	>26N/mm ²

TEST CRITERIA

The test performance data reported was measured according to ISO 4587 using M10 mild steel bolts and cured 24 hours at 22°C (71.6°F) before testing.

PACKAGING FORMAT

Bottles.....10ml, 25ml, 50ml, 250ml

INSTRUCTIONS FOR USE

Bondloc UK Ltd.
Units 1 & 2
Bewdley Business Park
Bewdley, Worcestershire
DY12 2TZ, UK

+44 (0) 1299 269 269
sales@bondloc.co.uk



Technical Data Sheet

B648 High Temperature Retainer

December 2021

- Clean surfaces to be bonded with B7063 Solvent Cleaner and allow to dry
- Apply adhesive to the threads, apply sufficient adhesive to fill the voids and then assemble and tighten as required
- When the cure speed is slow use B7649 Anaerobic activator for increased cure and set times.

LIMITATIONS

- This product is not recommended for use in pure oxygen and/or oxygen-rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials. Material removed from containers may be contaminated during use. Do not return product to the original container. Bondloc UK Ltd will not assume responsibility for product that has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact our office, and report the problem
- Anaerobic products are not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of the plastic could result). Users are recommended to confirm compatibility of the product with such substrates.

STORAGE

Store product in the unopened container in a dry area out of direct sunlight. Storage below 7°C or greater than 28°C can adversely affect product performance. If stored properly, this product has a shelf life of 24 months.

This technical information sheet does not constitute a Safety Data Sheet (SDS). Before using this product ensure you have read and fully understood this products SDS.

PRODUCT DISCLAIMER

Bondloc offers this Technical Data Sheet ("TDS") for descriptive and informational use only. It is not a warranty, a contract or a substitute for expert or professional advice. Please also see the local product Safety Data Sheet for health and safety considerations. The statements, technical information, data, and recommendations contained in this TDS are provided 'AS IS' and are not warranted or guaranteed in any way. They represent typical results for the products and are based on Bondloc's research only. Since the conditions and methods of use of the products are beyond our control, Bondloc expressly disclaims any and all liability and damages of whatever kind or nature that may arise from any use of the products, the results therefrom, or reliance on the information contain herein. This TDS is one of several tools that may be used to help you find the product best suited for your needs. It is used at your own risk, and by using it, you are knowingly accepting and assuming any and all risks associated with its use and recommendations. BUYERS AND USERS ASSUME ALL RESPONSIBILITY AND LIABILITY FOR ANY AND ALL LOSS OR DAMAGE OF WHATEVER KIND OR NATURE ARISING FROM OR RELATED TO THE HANDLING OR USE OF BONDLOC'S PRODUCTS. The performance of the product, its shelf life, and application characteristics will depend on many variables, including but not limited to the kind of materials to which the product will be applied, the environment in which the product is stored and/or applied, and the equipment used for application, among other things. Any change in any of these variables can affect the product's performance. You are responsible to test the suitability of any product in advance for any intended use or application. Bondloc does not guarantee the reliability, completeness, use, or function of the statements, technical information, data, and recommendations contained in this TDS.

HEALTH & SAFETY

Bondloc UK Ltd.
Units 1 & 2
Bewdley Business Park
Bewdley, Worcestershire
DY12 2TZ, UK

+44 (0) 1299 269 269
sales@bondloc.co.uk

