

Magnet bonding

Loxéal Structural Acrylic and Epoxy Adhesives have been especially formulated to match the requirements of magnet assemblies manufacturer. They offer cost effective solutions, are available in a variety of viscosities to suit production and they are commonly used to bond ferrite and neodymium magnets and are suitable for many applications: power generators, electric motors, microphones and speakers, power hand tools and others.

Key features of Loxéal Structural Adhesives:

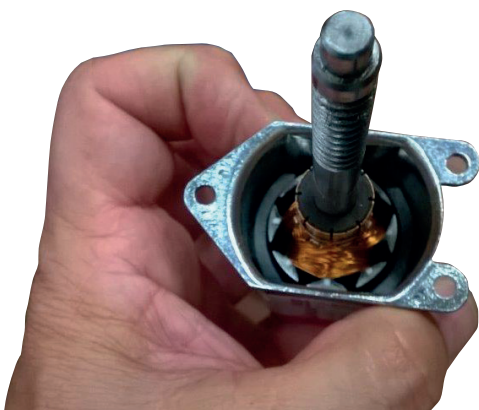
- ✓ Excellent resistance to harsh environments
- ✓ High shear and peel strength
- ✓ High temperature resistance
- ✓ Fast fixture time
- ✓ Toughened formulations and durable joints
- ✓ Acid free
- ✓ Easy dispensing (manual or automatic)
- ✓ Cure upon exposure to heat, activator or room temperature



Instant 43S and Instant 14

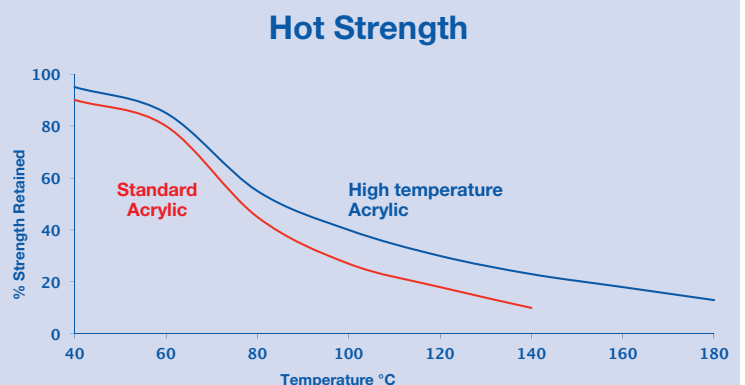
For applications requiring E or C magnetic core bonding for power generators, Loxéal provides its Customers with two Cyanoacrylates, Instant 43S and Instant 14 featuring:

- Low viscosity
- Fast curing time
- High strength in short time
- High temperature resistance



Focus on «high temperature acrylic technology»

Loxéal approaches the Electric Motors Market, requiring efficient products that can be used for applications involving high temperatures. The graph below shows the mechanical strength vs. temperature. Mild steel specimen - ISO 4587



High Temperature Acrylic Technology may be used for application with electric motor Insulation Class F

Products selection

Grade & Description	Cure Method	Viscosity (+25°C mPa s)	Gap filling (mm)	Fixture Time	Cure Time (hours)	Shear Strength (ISO 4587) N/mm ²	Temperature Range
Loxreal® 3459 Structural Adhesive Acid free, fast fixture speed acrylic adhesive. Toughened, it achieves in very few minutes good shear and impact strengths. It bonds ferrites, large metal parts. No mixing required.	Activator, No Mix, Room Temp Cure	15.000-25.000 Thixo	0,05-0,2	20-40 sec.	24	20-30	-65°C / +165°C
Loxreal® 3592 Structural Adhesive Two-part, toughened acrylic and ultra fast fixture time. In 5 minutes the adhesive achieves more than 30% of its final strength. High tensile, peeling and impact strength. For large gap filling. Bonds magnets and ferrites.	Bead on bead, Room Temp Cure	10.000-20.000 (A) thixo 3.500-5.500 (B) thixo	0,05-1,0	10-30 sec.	24	20-25	-55°C / +165°C
Loxreal® 3614 Epoxy Adhesive Two-part, toughened paste, bonding ferrite, magnets and ceramic. Suitable for assembling of electromechanical parts (permanent magnets on electric motors). No-sag. It shows very good impact strength and a good resistance to water, oils and gasoline.	External mix*, Room Temp Cure *Dedicated dosing system available	50.000-80.000 (A) thixo 50.000-80.000 (B) thixo	0,1-3,0	30-50 min.	24	15-25	-40°C / +80°C
Loxreal® 4401 Epoxy Adhesive Toughened, semi-flexible, high-temperature resistant, two-part epoxy resin. It provides a strong adhesion with high peel, cut and shear strength. Excellent resistance at high temperatures for short periods, as i.e. in stove enamelling cycles. Suitable for magnet bonding.	External mix*, Room Temp Cure Heat cure *Dedicated dosing system available	60.000-120.000 (A) thixo 50.000-100.000 (B) thixo	0,1-5,0	60-90 min. room temp.	4/7 days room temp. Heat cure +80°C: 1 h	20-30	-40°C / +120°C (peaks up to +140°C)
Loxreal® 4680 Epoxy Adhesive High strength, thixotropic single-part epoxy, becoming fluid once subjected to heat High impact, peeling and tensile adhesive properties.	Heat cure, Induction	60.000-100.000 Thixo	0,5 mm	Heat cure at +135°C: 25-50 min. Induction: < 3 min.	According to the cure profile	20-25	-40°C / +180°C

Please, refer to Technical Data Sheet for full information and directions for use.

Contact Loxreal

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