LOCTITE® 3463™

January 2013

PRODUCT DESCRIPTION

LOCTITE® 3463™ provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (uncured)	Metallic black[LMS]
Components	Two components - requires mixing
Cure	Room temperature cure
Application	Bonding
Specific Benefit	• Cures under water and will adhere to most damp surfaces • Adheres to most types of clean surfaces • Cures in 10 minutes for fast repairs

LOCTITE® 3463™ is a versatile, dual component, easy to use, steel filled epoxy repair putty. It is applied like a putty and when cured it has a high compressive strength and good adhesion to most surfaces. This product stops leaks in pipes and tanks, fills oversized bolt holes, smoothes welds, and repairs non-structural defects in castings holes in tanks. This product is typically used in applications with an operating range of -30 °C to +121 °C.

NSF International

Certified to ANSI/NSF Standard 61 for use in commercial and residential potable water systems not exceeding 82° C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Coverage	45 cm² @ 6 mm thick per tube

TYPICAL CURING PERFORMANCE

Curing Properties

Cure Time @ 25 °C, minutes	10
Working Time @ 25 °C, minutes	2.5 to 5.0[LMS]

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 1 hour @ 25 °C

Physical Properties:

Shore Hardness, ISO 868, Durometer D		>70[LMS]
Tensile Strength, ISO 527-2	N/mm²	17.2
	(psi)	(2,500)

Adhesive Properties

Cured for 1 hour @ 25 °C

Lap Shear Strength, ISO 4587:		
Steel (grit blasted)	N/mm²	≥3.45[LMS]
	(psi)	(≥500)
Aluminum (acid etched):		
0.125 mm gap	N/mm²	4.8
	(psi)	(700)
Compressive Shear Strength, ISO 10123:		
Steel pins and collars	N/mm²	83
	(psi)	(12,000)

GENERAL INFORMATION

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.

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

Directions for use:

1. **CAUTION**: Do not apply to surfaces above 66 °C.
2. Apply to clean and dry surface for best strength. LOCTITE® 3463™ can be applied to wet surfaces, but bond strength will be lower.
3. For maximum adhesion, clean and sand surface.
4. Use gloves; do not mix with bare hands.
5. Cut required amount of material from stick. Remove clear plastic wrapper from cut section.
6. To mix, first twist the material to produce a spiral pattern of resin and hardener. Next, knead material for 2-3 minutes or until a uniform color is achieved.
7. Firmly apply for patch, repair or bonding.
8. For a smooth finish, wet a cloth or finger with water and smooth.

Technical Tips for Working With Epoxies

Working time and cure depends on temperature and mass:

- The higher the temperature, the faster the cure.
- The larger the mass of material, the faster the cure.

To speed the cure of epoxies at low temperatures:

- Store epoxy at room temperature.
- Pre-heat repair surface until warm to the touch.

To slow the cure of epoxies at high temperatures:

- Mix epoxy in small masses to prevent rapid curing.
- Cool putty down.

TYPICAL PERFORMANCE OF CURED MATERIAL

Loctite Material Specification[LMS]
LMS dated January 22, 2002. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

Storage
Store product in the unopened container in a dry location. Material removed from containers may be contaminated during use. Do not return liquid to original container. Storage information may be indicated on the product container labeling. **Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties**. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those recommended. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Note
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Reference 1.1