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Technical Data Sheet

Permatex® ScrewGlue Repair Gel

Industrial

PRODUCT DESCRIPTION

Permatex® ScrewGlue Repair Gel is a medium strength, threadlocking adhesive designed to restore stripped screws and holes. This liquid product is a single component, anaerobic gel that cures when confined in the absence of air between close fitting metal surfaces, ideal for all 6mm to 25mm (1/4 inch to 1 inch) diameter threaded assemblies. ScrewGlue Repair Gel excels at mending metal-to-metal threads for both interior and exterior applications, due to the excellent chemical and temperature resistance. The cured assembly is easily adjustable or removable with hand tools.

PRODUCT BENEFITS

Improved Reliability

- Revives worn screws and holes
- Restores and increases holding power
- Forms lasting bond that resists heat, vibration, and chemicals
- Seals metal threads to prevent rust and leaks
- Designed for use on vertical or hard-to-reach applications
- Cures without cracking or shrinking
- Adjusts or disassembles with hand tools

Easy Application

- Single component
- No mess Gel Squeeze applicator
- Gel-type product does not drip when applied
- Will not cure outside threaded assembly for easy clean-up
- No torque compensation required during assembly

TYPICAL APPLICATIONS

Restores holding power of worn metal threaded fasteners. Particularly suitable for metal screws and holes such as:

- Door knobs
- Cabinet handles
- Interior and exterior furniture
- TV and photo mounts
- Drywall anchors
- Kitchen utensils
- Pots and pans
- Lawnmowers and yard trimmers
- BBQ grills
- Kids toys
- Hunting and outdoor gear
- Sports equipment

DIRECTIONS FOR USE

For assembly

1. Clean all threads (bolt and hole) with a cleaning solvent such as rubbing alcohol or nail polish remover (acetone) and allow to dry.
2. Remove cap and squeeze 1/8 to 1/4" (3mm to 6mm) of material beyond tip.
3. Apply gel within the engagement area (usually 5-6 threads) of the male fitting.
4. Assemble parts and tighten to recommended torque.
5. Wipe away any bleed-out or spills with a clean cloth and small amount of cleaning solvent if necessary.

For Disassembly

1. Remove with standard hand tools.
2. In the rare instance where hand tools do not work, because of excessive engagement length, apply localized heat to nut or bolt to approximately 450°F (232°C).
3. Disassemble while hot.

For Reassembly

1. Remove loose product from nut and bolt using a stiff wire brush and cleaning solvent.
2. Apply Permatex® Surface Prep Activator to all threads, regardless of metal type and allow to dry.
3. Apply threadlocker gel as above.
4. Assemble and tighten as usual.

PROPERTIES OF UNCURED MATERIAL

	Typical Value
Chemical Type	Anaerobic Dimethacrylate Ester
Appearance	Opaque Blue Fluorescent Gel
Specific Gravity	1.15
Viscosity @ 25°C, cP Brookfield RVF, spindle #3, @ 20 RPM	Gel
Flash Point (TCC), °F (°C)	>200 (>93)

TYPICAL CURING PERFORMANCE

Cure speed vs. substrate

The rate of cure will depend upon the type of material used. Permatex® ScrewGlue Repair Gel will react faster and stronger with **Active Metals.** However, **Inactive Metals** will require the use of Permatex® Surface Prep Activator to obtain maximum strength and cure speed at room temperature.

Active Metals	Inactive Metals
Soft Steel Iron	Bright Platings
Copper	Anodized Surfaces
Brass	Titanium

Active Metals	Inactive Metals
Manganese	Zinc
Bronze	Pure Aluminum
Nickel	Stainless Steel
Aluminum Alloy	Cadmium

Cure speed vs. temperature

The rate of cure will depend on the ambient temperature. **Full cure** is attainable in 24 hours at room temperature, 72°F (22°C), or 1 hour at 200°F (93°C).

PERFORMANCE OF CURED MATERIAL

(After 24 hrs. at 72°F on 3/8-16 steel Grade 8 Nuts and Grade 5 bolts)

	Typical Value	Typical Range
Breakaway Torque, in-lb	115	70 to 150
(Nm)	(13)	(8 to 17)
Prevail Torque, in-lb	53	25 to 60
(Nm)	(6)	(3 to 7)

Breakaway torque is the force required to initiate the fastener movement; prevail torque is the force required to disassemble the fastener once breakaway torque is reached.

TYPICAL ENVIRONMENTAL RESISTANCE

Temperature Resistance

Product temperature range from -65°F to +300°F (-54°C to +149°C). The breakaway and prevailing torque values decrease as temperature increases; however, the assembly remains effective against vibration and leakage.

Chemical / Solvent Resistance

Aged under conditions and tested at 72°F (22°C)
3/8 – 16 steel nuts & bolts
% Initial Strength retained after time

	Temp	1000hr
Hot air	150°C	47
Motor oil (SL)	125°C	21

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).

ORDERING INFORMATION

Part Number	Container Size
28205	5g squeeze tube, carded

STORAGE

Products shall be ideally stored in a cool, dry location in closed containers at a temperature between 14°F (-10°C) to 86°F (30°C). Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container.

NOTE

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