

TECHNICAL DATA SHEET

UPS 19060 SGUW STICK GRADE METAL UNDERWATER



UNIQUE POLYMER SYSTEMS

INNOVATE | REBUILD | ENHANCE

UPS 19060 SGUW Stick Grade Metal Underwater is a two-component repair material in stick form which cures underwater after mixing.

UPS 19060 SGUW is a metal repair adhesive which develops high mechanical strength in a short period of time. It is a main component of the UPS 12000 LLR Live Leak Repair Kit where it is used to 'plug' the through wall defect prior to wrapping.

Product Information

Product Features

- Simple to use; only requiring simple hand mixing to activate reaction between the concentrically packed components.
- Designed for application by gloved hand, putty knife or spatula.
- Bonds to any surface underwater
- Can be applied to any damaged metal surface, plus glass, fiberglass, concrete, ceramics, wood and other composite surfaces.
- Designed for rapid repairs to cracked casting, leaking pipes, tanks, flanges, etc., minimizing downtime.
- Exhibits excellent adhesion to correctly prepared metal surfaces.

Product Applications

Suitable for emergency repairs or part of planned maintenance to equipment such as;

Worn or damaged pump shafts, cracked pump or valve casings, scored hydraulic rams, worn bearing housings, damaged flanges, leaking tank seams, worn keyways, cracked engine blocks, etc.



No Specialist Tools Required



45 Minutes to Hard Dry



Temperature limitations
120°C continuous
150°C intermittent



Cost Effect Solution

Surface Preparation

Metallic Substrates – Hand Tools

1. All oil and grease must be removed from the surface of the using UPS 9918 MEK Cleaner.
2. It is recommended that surfaces are abraded prior to application of the product.
3. Remove all loose material such as rust or flaking paint prior to the application of this product.

Mixing

Prior to mixing please ensure the following:

1. The base component is at room temperature between approx. 20°C (68°F). The ambient surface temperature is above 5°C (41°F)

Then proceed with mixing the product:

1. The product is supplied in stock form and therefore the Base and Activator components are pre-measured.
2. Break off the required amount of material from the stick and using gloved hands, knead the product until the green and cream components become a consistent light green.
3. The product once fully mixed has a useable life of 15 minutes at 20°C (68°F).

Application

Using gloved hands, spatula or putty knife application -

1. Press the mixed product onto the prepared surface (within 2 minutes), rubbing with a damp cloth for a smooth appearance.

Adhesive Use – Force putty against each surface before pressing them together, support the joint until putty has hardened.

Repair Use – Force putty into area that requires filling/repairing, shape and strike off excess using a wetted tool.

Technical Data & Performance

Drying & Cure Times

At 20°C (68°F) the applied materials should be allowed to harden for the times indicated below before being subjected to the conditions indicated.

These times will be extended at lower temperatures and reduced at high temperatures:

Useable Life	15 minutes
Hard Dry	45 minutes
Machining & Light Loading	45 minutes
Full Cure	90 minutes
Immersion	90 minutes

Appearance

Mixed Material Colour	Light Green Putty
Base Component Colour	Green
Activator Component Colour	Cream

Available Colours

Grey

Over Coating Times

Minimum	The applied material can be over coated as soon as it is touch dry
Maximum	The over coating time should not exceed 90 minutes

Where the maximum over coating time is exceeded, the material should be allowed to harden before being abraded or flash blasted to remove surface contamination.

Pack Sizes

125GM Stick

Shelf Life

18 months if unopened and store in normal dry conditions (15-30°C / 60-86°F)

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Mechanical Properties

Adhesion Tensile Shear To ASTM D1002 on abrasive blasted mild steel with 75-micron profile	185 kg/cm ² (2630psi)
Pull off Adhesion To ASTM D4541 on mechanically prepared steel with 75-micron profile	125 kg/cm ² (1780psi)
Compressive Strength Tested to ASTM D695	843 kg/cm ² (12,000 PSI)
Flexural Strength Tested to ASTM D790	455 kg/ cm ² (6470 psi)
Lap Shear Strength on Steel	6.2N/mm ² 3.4N/mm ²
Temperature Limitations	120°C continuous 150°C intermittent
Hardness Rockwell R to ASTM D785	92
Electrical Resistance	30,000 MΩ
Dielectric Strength	300 V/mm
Compressive Strength	75N/mm ²

Heat Resistance

Suitable for long-term water immersion at temperatures up to 140°C (284°F).

Chemical Resistance

The product demonstrates resistance to a wide variety of hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions, dilute acids and bases. Refer to the Unique Polymer Systems Technical Centre for advice.

Global Availability

UPS 19060 SGUW Stick Grade Metal Underwater is available from a network of Global Distributors for prompt delivery. For further details and the location of your local distributor, please contact Unique Polymer Systems on:
+44(0) 1531 636300 | sales@uniquepolymersystems.com

Technical Service

Complete technical assistance is available. Please contact Unique Polymer Systems with your requirements:
+44(0) 1531 636300 | sales@uniquepolymersystems.com

The products that we supply are for professional use only, it is your responsibility to read the technical data sheets before you place an order and prior to application of the product.

Quality: All Unique Polymer Systems Products are supplied under the scopes of the company's fully documented quality system.

Warranty: Unique Polymer Systems warrants that the performance of the product supplied will confirm to the typical descriptions quoted within this Technical Data Sheet provided the material is stored correctly and used according to the procedures detailed in the Technical Data Sheet for the material.

Health & Safety: Please ensure good practice is always observed during the mixing and application of this product. **Protective gloves must be worn during the mixing and application of this product.** Before mixing and applying the material please ensure you have read the fully detailed Material Safety Data Sheet.

Legal Notice: The data contained within this Technical Data Sheet is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the customer to determine the products suitability for use. Unique Polymer Systems accepts no liability arising out of the use of this information or the product described herein.



**USED ALL OVER
THE WORLD**

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