



Terostat® SA-477		Product Number TD-4201-X
Product type	One Component Solvent Free, Heat Curable Mastic Sealer for Aluminum	
Substrate type	Aluminum	
Application	Terostat SA-477 is used in the body shop for bonding hoods	

Product Technology:

Terostat SA-477 is a heat curing, solvent free, metal to metal mastic adhesive with good storage stability based on SA-476. The material can be spot welded and will reach maximum strength with curing temperatures between 170° and 190°C. The product exhibits excellent strength and corrosion resistance at temperature extremes or after extensive aging and weathering.

Typical Properties:

Property	Typical Results
Color	Black
Odor	None
Consistency	Paste
Solids	> 97%
Specific Gravity	1.48
Sagging on Oily Surface	0mm
Hardness	> 10
Elongation	> 100%
Volume Change	Slight Expansion
Curing Mechanism	Heat Cure
Press Viscosity (0.104" Orifice, 40 PSI @ 77F, 20 grams)	45 - 65 s
Adhesion to Aluminum Bake 20 minutes at 160°C Bake 20 minutes at 171°C Bake 20 minutes at 190°C	Cohesive Failure Cohesive Failure Cohesive Failure
Application Temperature	23 - 35°C

Operating Summary:



Authorized Distributor

1-800-375-0605

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ADHERING TO QUALITY

- To obtain optimum strength the following cure conditions have proven successful:
 - > 10 minutes at 160°C metal temperature
 - < 30 minutes at 190°C metal temperature
- It is recommended that testing is completed on substrates to be used to validate this material prior to use.
- Shutdown - For extended shutdown periods, greater than 8 hours, it is recommended that pressure be removed from the system to reduce possibility of caking in lines.
- Material Purge - Regular purge and cleaning of the application system is recommended, please contact your sales representative for material requirements and instructions.
- As with all materials, it is recommended that to ensure consistent material, this product be used in a First In - First Out stock rotation system.

Equipment:

- It is recommended that this material be dispensed using a pumping system. This should include a high pressure ratio pump, with recommended ratio of 55:1 or greater. Care should be taken in system design to insure that flow restrictions are minimized. Flow restrictions occur when headers, hoses, and/or nozzles are too small for the application. By reducing flow restriction, it is possible that lower ratio pumps can be used.
- Equipment with piston, gear, or rotary pumps is suitable for the application of Terostat SA-477 from pails or drums.
- If for certain reasons application temperature is above 35°C, it should be reduced below because viscosity increases at higher temperatures.
- The application pistol can be used either manually, on a fixed basis, or attached to an automatic application system (robot, CNC). The applicator nozzle may be designed according to individual requirements.
- For smaller production as well as preliminary tests Terostat SA-477 can also be supplied in 310 ml cartridges
- If required, we will provide you with the necessary information on suitable application equipment.
- The product is applied to untreated sheet aluminum, which has not been pre-heated, and this can be carried out very neatly. Terostat SA-477 achieves its final properties at temperatures above 160°C (EC oven, primer and paint oven).

Metal Surface Preparation:

- This material has been developed to adhere to a wide variety of material surfaces. While no pre-cleaning of the substrate is required, removal of excess lubricants is desired and clean substrate is preferred. Cleaning of the substrate can be through chemical and/or mechanical methods. For more information on metal cleaning chemicals please contact your Henkel Surface Technologies sales representative.

Product Removal:

- Fresh, uncured material can be removed with the aid of solvent such as Mineral Sprits, Xylene or Toluene. Large amounts of material can be removed using towels or rags and then cleaned with solvent. Cured material can only be removed mechanically.

Health and Safety:

- Refer to MSDS for further information.
- Prior to application it is necessary to read the Material Safety Data Sheet for information about precautionary measures and safety recommendations.
- For chemicals exempt from compulsory labeling, the relevant precautions should always be observed.

Product Control Test Method:

- No specific test methods are recommended to be used by customer.
- Additional information on product testing is available on request.

Storage Requirements:

- Recommended Storage Temperature: below 25°C
- Shelf life: 90 days

Waste Disposal:

- Refer to MSDS for further information.

Order Information:

Order Code Number	Available Packaging
TD-4201-X	Please call

For more information, please call your Sales Representative at **(248) 583-9300**.

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Revision Date:

Revision Number:

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