

LOCTITE® TW 605

Known as EMRALON TW 605
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Product description

LOCTITE® TW 605 provides the following product characteristics:

Technology	Water based
Product type	Coating/1K Smooth
Application	EPDM and TPE
Features and benefits	• Smooth waterborne coating • One component system • Excellent water repellence • Performs over a range of coating thicknesses • Flexible curing cycles • Environmental friendly • Ease of use • Safer handling: reduced health risks • Economical coating thickness can be selected for each application • Versatil in many application conditions
Cure	Cure at elevated temperatures

LOCTITE® TW 605 is one of Henkel's new generation, NMP free weather-strip coatings. It is a silicone resin bonded coating and it is designed to provide dry film lubrication and release properties in a variety of industrial and automotive applications. It is designed to be applied to rubber, hot extruded as well as on-moulded parts. LOCTITE® TW 605 has been found to be an effective product in applications requiring squeak supression and provides freeze-release characteristics when applied on primary door seals. It reduces the friction between rubber and glass or painted surfaces. The product contains a UV-tracer to make it visible under UV-light (for checking presence of the coating). In addition to these properties it is a high water repellent. The cured coating is matt black in appearance, flexible, shows good wear resistance and is not abrasive to painted surfaces.

Application areas

- Rubber and TPE* extrusions - door, trunk and sunroof gaskets
- Rubber and TPE* moulded parts - weather strip
- *For TPE a primer (e.g. LOCTITE TP 650 or LOCTITE TP 665) is needed

Typical properties of uncured material

Solvent	water
Solids content, %	28.5 to 31.5
Viscosity, mPas	70 to 150
Measuring system	Brookfield
Temperature, °C	20
Speed, rpm	20
Time, min	15
Flash point, °C	>100
Density, kg/m ³	1.035
pH	8.5 to 9.5
Theoretical coverage	approx. 25 m ² /kg at 10 µm dry coatings thickness

Typical properties of cured material

Colour	black
Gloss level (60° angle)	<4 at recommended coating thickness
Static coefficient of friction	<0.2

Preliminary statement:

Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Direction of use

Stirring

First homogenise the product properly by stirring and always use closed containers (lid with a hole):

1. Short stirring for 10 min @ 200 rpm.
2. Reduced stirring speed (approx. 40 to 60 rpm) during usage of LOCTITE® TW 605.

Application

LOCTITE® TW 605 is designed to be spray applied in-line or off-line to rubber extrusions or moulded parts with a surface temperature of 50 to 120°C.

Pre-treatment

LOCTITE® TW 605 has an internal adhesion promoter and it may work without any pretreatment, but this must be checked by the users as adhesion results will vary depending on the different rubber compounds and line conditions.

Recommended coating thickness

- Squeak-suppression:

A dry coating thickness of 8 to 12 µm is required to obtain proper squeak suppression.

- Freeze-release:

Good freeze release properties are already obtained with a dry coating thickness of 10 to 15 µm.

CureAdvised schedule:

20 minutes @ 80°C

10 minutes @ 100°C

2 minutes @ 180°C

(substrate temperature)

Test for cure

MEK wipe test: at least 20 rubs.

Application assistance

Henkel's Application Specialists are available to assist you in production start-up with LOCTITE® TW 605.

Storage

LOCTITE® TW 605 is frost-sensitive.

Recommended storage temperature:

5 to 30°C under original seal. Return to room temperature and stir gently before using. Do not freeze.

Recommended transportation temperature:

5 to 50°C for short term.

Transit and interim storage situations (i.e. receiving) are not encompassed by Henkel's storage requirements. It should be noted however that all efforts should be made to store material as required, as soon as possible. Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Shelf life

9 months from date of qualification under original seal.

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

Additional information**Disclaimer**

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