Technical Data Sheet

LOCTITE® PC 4410

July 2020

PRODUCT DESCRIPTION

LOCTITE® PC 4410 Plastic / Glass Protect and Repel coating provides the following product characteristics:

Technology	Coating
Chemical Type	Polyurethane/polyurea hybrid
Appearance	Clear
Components	One component - requires no mixing
Viscosity	Liquid
Cure	Humidity
Application	Protective coating
Application Temperature	4 to 32°C (39 to 90 °F)
In service temperature	-25 to 80°C (-13 to 176 °F)
Specific Benefits	• Coating for glass and plastics • Improves optical clarity • Restores original appearance and gloss • Extreme UV, chemical, solvent, and scratch resistance • Water, Oil and ice repellency • No VOC

LOCTITE® PC 4410 one-component, solvent based, humidity cured, highly cross-linked, Polyurea-polyurethane hybrid coating used to enhance, restore, and extend the life of most plastics like polycarbonate, TPO, ABS, and glass. LOCTITE® PC 4410 improves optical clarity and provides remarkable scratch resistance, water, dirt, oil and ice repellency, and chemical and UV resistance. LOCTITE® PC 4410 is designed to dramatically extend surface life of glass and plastic components while significantly reducing surface maintenance with hydrophobic, oleophobic & ice repellency properties. Typical applications include polycarbonate headlight lenses, automotive plastic components, engine covers, polycarbonate parts, light fixtures, solar panels, boats, motorcycles, agricultural equipment, or any plastic asset susceptible to be degraded by chemical, scratch, UV, humidity exposure.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity 25 °C, mPa.s (cP) Brookfield – RVT Spindle 2, speed 20rpm		20
Solids content, % by weight		35
VOC	g/L (lbs/gal)	156 (1.25)

TYPICAL CURING PERFORMANCE

Cured @ 23°C, 50% RH

Dust free, minutes		10
Tack free, minutes		30
Handling time, hours		4
Drying time, hours		12
@ 60°C (140°F)		30
Coverage, 3.8 L(1 gal) 50 µm(2 mil) DFT	m^2 (ft^2)	74 (800)

TYPICAL PERFORMANCE OF CURED MATERIAL

Cured for 24 hrs @ 23°C, 50% RH

Physical Properties

Pencil hardness, H ASTM D3363	8

Adhesive Properties

Abrasion resistance, mg loss ASTM D4060	8.4
Impact resistance, mg loss ASTM D4060	8.4

TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 24 hrs @ 23°C, 50% RH

Chemical/Solvent Resistance

Water Immersion ISO 2812-2	Pass
MEK Resistance, rubs ASTM D4572	1,500
QUV resistance, 1500 hours, % ASTM D4587	99
Xenon WOM, 2000 hour, % ASTM G155	99
Accelerated weathering, 4000 hours, % ASTM G155	1
Flammability : retardant/flame ASTM E84	Class 1 / Class A

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 Safety Data Sheet (SDS).

Directions for use

Surface Preparation:

1. New plastic requires surface cleaning with a suitable non-etching cleaner like TEROSON® VR 10.
2. Old/faded Polycarbonate needs to be polished using a 2000 to 2500 grit paper.
3. Degrease and de-wax (if applicable).
4. Thoroughly clean, water rinse and dry.
5. Glass requires cleaning with a suitable glass cleaner.
6. Make sure there is no residue of the glass cleaner before application of LOCTITE® PC 4410.

Spray Application:

1. Apply using a HVLP spray gun with a 1.4 mm tip. Apply 1 wet coat @ 1 mil WFT or 0.1 mils.
2. Use dedicated spray lines and equipment for the best results.
3. Follow the recommended initial parameters and adjust a needed.

   Air Spray Equipment
   Spray gun: HVLP or LVLP
   Fluid tip: 1.3-1.5 mm (0.05-0.09 in)
   Fan pattern: full
   Fluid control: 2 1/2 turns out
   Spray pattern: 50% overlap
   Pressure at gun: 0.2 MPa (25 – 30 psi)

4. Number of spray coats: apply 1 to 2 wet coats with 5 minutes between wet coats to allow for solvent evaporation.
5. Avoid additional coats after 20 minutes as flow and leveling will be negatively affected.
6. Recommended WFT (wet film thickness): 12 µm (0.012 mil) per each wet coat.
7. Recommended DFT (dry film thickness): 25-50 µm (1.5 -2.5 mil) depending on surface properties desired.

Wipe on Application:

1. LOCTITE® PC 4410 can be also applied using a "wipe-on" technique using a microfiber cloth or sponge.
2. Pre apply LOCTITE® PC 4410 to the microfiber cloth, make sure there is enough product to self-level, this may take practice to get right.
3. Apply the product starting from the edges, follow same linear pattern to wipe the panel.
4. If streaks appear, apply more product to the microfiber cloth as many times as necessary.
5. Coat the surface completely, if you get a “run” just wipe on and keep going.
6. Apply 1-2 wet coats with 5 minutes between wet coats to allow for solvent evaporation.

Cleaning:

1. Clean spray equipment immediately using paint thinner, MEK or acetone.
2. Never clean spray equipment with water or alcohol.
3. Wipe on - Let the applicator (microfiber cloth) fully cure to the air before disposing it.
4. LOCTITE® PC 4410 is a moisture sensitive system. It is important to close containers immediately after use to avoid moisture contamination.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.
Optimal Storage: below 8 to 21 °C. Storage greater than 28 °C can adversely affect product properties.
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 Henkel representative.

Product Specification

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and Certificate

Please contact a Henkel representative for related approval or certificate of this product.

Data Ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.
Temperature/Humidity Ranges: 23 °C / 50% RH = 23±2 °C / 50 ±5% RH

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

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