

PROTHANE DTM PUT-50891

No. TD : P-037
Revision : 04
Effective Date : 20/02/2024

PRODUCT DESCRIPTION & USES

PROTHANE DTM PUT-50891 is a two-components aliphatic polyurethane. This product is used as a top coat on direct to metal or iron surface, and specially design for impurities tolerance such as oil. With its excellent gloss resistance, non-chalking and non-yellowing, this product can be used in atmospheric environments.

FEATURES

- Direct to Metal
- Good Adhesion on Oily Metal
- Excellent Gloss Resistance
- Non-Chalking and Non-Yellowing
- Good Abrasive Resistance
- Good Impact Resistance
- Good Resistance to Splash of Mild Chemicals and Water

PRODUCT SPECIFICATION

Colors : Wide color range
Finish : Gloss
Volume Solid : 30+ 2%
Specific Gravity : 1.00± 0.05 g/cc
Flash Point : 27 °C
Packaging : 5 & 20 Liters set
Storage Stability : 24 Months. If it is stored in cool and dry place, also in its original not opened package. (Do not store below freezing point)

APPLICATION

Application Condition : 25 – 35 °C, 60 – 80% RH
Mixing Ratio by Volume :

A Component	B Component	= 9 : 1 (v/v)
(PUT-50891)	(PUTH-50891 PS)	

Thinner : THPU-71352 M or Thinner PU MD
Application Method : Airless Spray Air Spray Brush/Roller
Thinning Ratio by Volume : Not recommended (can add if necessary at 0 – 10%)
Tip Size for Airless Spray Gun : 0.015 – 0.017 inch Air Pressure : approx. 110 bar/1600 psi
Nozzle Orifice for Air Spray : Approx. 1 – 1.5 mm Air Pressure : approx. 3-4 bar/40-60 psi
Wet Film Thickness (WFT) : 167 – 200 microns or 6.7 – 8 mils
Dry Film Thickness (DFT) : 50 – 60 microns or 2 – 2.4 mils
Theoretical Coverage : 6 m²/liter set (DFT = 50 microns)
Pot Life :

20°C	30°C	40°C
4 - 5 hours	3 – 4 hours	2.5 – 3.5 hours

FILM PROPERTIES

Drying Time (@ DFT = 50 mic) :

	20°C	30°C	40°C
• Surface Dry	15 – 20 minutes	5 – 15 minutes	5 – 10 minutes
• Hard Dry	2.5 – 3.5 hours	2 – 3 hours	1.5 – 2 hours

• Full Cure : 7 days (30°C)

Re-coating Interval : Minimum 6 hours (30°C)

: Maximum 30 days (30°C)*

Provide adequate ventilation during application and drying.

RECOMMENDED COATING SYSTEM

Primer Coat	: According to Specification
Intermediate Coat	: According to Specification
Finish Coat	: PROTHANE DTM PUT-50891
Recommended Dry Film Thickness	: 1 coat (50 microns / coat)

SURFACE PREPARATION

1. All surfaces should be clean, dry and free from contamination in accordance with SSPC-SP 1 solvent cleaning.
2. In case of new steel, abrasive sand blasting to minimum Sa2 in accordance with the SWEDISH STANDARD SIS 05 59 00 and ISO 8501-1: 1988 or SSPC-SP 6 before applying recommended primer coating system.
3. For maintenance areas of breakdown, damage and etc., should be prepared to the specified standard (e.g. Sa 2 (ISO 8501-1)) and primed (if any) prior to the application of PROTHANE DTM PUT-50891.
4. PROTHANE DTM PUT-50891 should always be applied over a recommended anti-corrosive coating scheme.
5. The Primer surface should be dry and free from all contamination (oil, grease, salt, etc.) and over-coated with PROTHANE DTM PUT-50891 within the over-coating intervals specified.
6. Provide adequate ventilation during application and drying.

INSTRUCTION FOR USE

Stir well before use, preferable by means use mechanical mixer to ensure good homogeneity. Prepare one mixture (A+B) as much as needed for application. Firstly stir well Comp. A **PUT – 50891** until homogeneous, add Comp. B **PUTH - 50891 PS** and mix thoroughly. Mix ratio **Comp. A : Comp. B = 9 : 1 (by volume)**. Added thinner THPU-71352 M or Thinner PU MD if needed. Apply Mixed material could apply using airless spray, brush or roller. Do not apply the mixed material after pot life time is over.

SAFETY PRECAUTION

Avoid contact with the skin and eyes. Wear suitable protective coating, such as overalls, goggles, dust mask, and gloves. Use barrier cream. Provide adequate ventilation during application. Do not breathe vapor of spray. This product is flammable. Do not smoke. Use only explosion proof equipment.

FIRST AID:

General	: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Eyes	: In the case of accidental splashes, flush eyes with clear running water for 5 minutes while holding eyelids open. If irritation persist, seek medical attention.
Skin	: Wash off thoroughly with plenty of water and soap. Do not use solvent or thinner. Removed contaminated clothing. If irritation persist, seek medical attention.
Inhalation	: Remove affected person to fresh air area, loosen collar, and provide oxygen if breathing is difficult. If affected person is not breathing, administer CPR and seek emergency medical attention.

DISCLAIMER

This document contains information issued based on the best and latest of Propan's knowledge in accordance to laboratory testing and practical application experience. The end user must test the product's suitability for their specific application and purpose. Propan shall not be liable for defects where the application of the Product has not been made fully in accordance with the recommendations and requirements. This document is subjected to change without further notice. Please consult Propan for any specific guidance on the suitability of this product for their needs or for any specific application practices.