

MasterSeal® TC 257

Polyurethane Based, Two Component, Protective Coat

DESCRIPTION OF PRODUCT

MasterSeal® TC 257, is a two component, low solvent containing, UV resistance, high chemical and abrasion resistance, polyurethane based protective coating.

FIELDS OF APPLICATION

- Car parks both indoors and out,
- Pedestrian walk ways,
- Light engineering workshops,
- Vehicle ramps

FEATURES AND BENEFITS

- Excellent impact and abrasion resistance
- Hardness is high
- Provides excellent adherence even when in contact with continuous water.
- UV & weather resistant.
- Good chemical and oil resistance.
- High quality aliphatic polyurethane prepolymer structure.
- Available in gray, green, red, blue and shades (colors available on request).

APPLICATION PROCEDURE

Preparation of Substrate

The surface of the coating on which **MasterSeal® TC 257** is to be applied should be free of dust, dirt, oil and other adhesion impairing contaminants. The application should be carried out within the recoating interval of the coating. Contact our Technical Services for the application on old coating.

Application Method

MasterSeal® TC 257 has two component. Before use, the epoxy / polyurethane resin should be mixed thoroughly with the 300 - 400 rpm mechanical mixer for 3 - 4 minutes with the padded drill without causing air bubbles. Make sure that the temperature of the material is between +15 - +25°C prior to mixing. Do not apply when the humidity exceeds 80%. Ensure that the substrate temperature is 3°C higher than the dew point. Apply by roller or squeegee. In roll applications, it must be scanned sufficiently to minimize roll traces.

COVERAGE

Consumption varies according to system solutions.

WATCH POINTS

- Avoid application under excessive heat or wind and/or when the ambient and/or substrate temperature is below +10°C or above 30°C.
- The materials to be used at the appropriate temperatures should be brought and stored in the application area 1-2 days prior to the application and enabled to adjust the ambient conditions.
- In extremely cold conditions, heaters should be used to increase the ambient and the workability of the product, the packages should be preconditioned to +15 - +25°C to become ready to use.
- Epoxy and polyurethane based floor coatings should be applied by specialists.
- The reaction and workability times of resin based systems depend on the ambient and substrate temperatures as well as the relative humidity. Under lower temperatures, the chemical reaction times are prolonged and this increases the pot life, coating interval and the working time.

TECHNICAL DATA

MasterSeal® TC 257	Polyurethane
Density	1,25 g/cm ³
Pot Life	60 minutes
Curing time	~2 hours
Fully Cured	48 hours
Application Temperature	+10°C - +35°C
Tensile Strength (ASTM D 412)	>12 N/mm ²
Elongation (ASTM D 412)	>%30
Tear Strength (ASTM D 1004)	40 Kn/m
Wear Resistance	50 mg
Adhesion Strength (ASTM D 4541)	>2mPa

The above figures are valid for +25 C and 50% relative humidity. High temperatures shorten times, prolongs low temperatures.

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In addition to this, the consumption is increased as the viscosity increases. High temperatures ignite stronger chemical reactions and the above mentioned times decrease accordingly. For the material to be cured properly, the ambient and the substrate temperatures should not fall below the specified limits. After the application, the material should be protected from direct contact with water for 24 hours minimum. Within this period, a contact with water may cause a surface carbonation and/ or tackiness; both of which will cause the coating to lose its characteristics. In such cases, the overall coating should be removed from the floor and renewed.

- The relative humidity must be at least 40% and not more than 80% during application.
- **MasterSeal® TC 257** is a two-component, ready-to-use product. No solvent etc should be added during application.
- The empty packs should be consolidated and disposed properly in order to prevent reusing of the packages.

CLEANING OF TOOLS

Used tools and equipment must be cleaned carefully with an appropriate solvent. Once cured **MasterSeal® TC 257** can only be removed by mechanical means.

PACKAGING

22,5 kg kit
Component A: 16,545 kg
Component B: 5,955 kg

STORAGE

The product should be stored in its original package, in a cool and dry place protected from frost. For short term storage, maximum 3 palettes should be placed on top of each other and the shipment should be made on a 'first come, first go' basis. Palettes should not be placed on top of each other during long term storage.

SHELF LIFE

For Part A shelf life is 12 months, Part B shelf life is 9 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

HEALTH AND SAFETY PRECAUTIONS

It is dangerous to approach the application sites with fire. Fresh air should be circulated in the storage and the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Precautions Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact,

the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

DISCLAIMER

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. Alan veriler, bilimsel ve pratik bilgilerimize dayanmaktadır. **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** is only responsible for the quality of the product. Alan veriler, bilimsel ve pratik bilgilerimize dayanmaktadır. **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

CONTACT INFORMATION

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MasterSeal® TC 257 Technical Data Sheet -Revision
Date: 03/2023

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1020 Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti. Adres: Barbaros Mah. Begonya Sok. Nidakule Kuzey Ataşehir, C Kapsi No:3 E/5, 34746 Ataşehir İstanbul	
20 DOP NO:02.1504.2.039 1020 – CPR – 040 065838	
EN 1504-2: 2004 MASTERSEAL TC 257 eton Yapıların Korunması ve Tamiri için Mamuller ve Sistemler. Bölüm:2 Beton için Yüzey Koruma Sistemleri (Products and systems for the protection and repair of concrete structures Part 2: Surface protection systems for concrete) 1.3 Yabancı madde girişine karşı koruma, 2.2 Nem kontrolü, 8.2 Artan direnç (Principles: 1.3 Ingress protection, 2.2 Moisture control, 8.2 Increasing resistivity)	
Karbondiyoksit geçirgenliği (Permeability to CO ₂)	CO ₂ SD permeability>50m
Su buharı geçirgenliği (Permeability of water vapour)	Sınıf 1 SD < 5 m (Class 1 SD < 5 m)
Kapiler su emme ve su geçirgenliği (Capillary absorption and permeability to water)	w<0,1 kg/m ² .√h
Çekip koparma deneyi yoluyla yapışma dayanımı (Adhesion strength by pull-off test)	Trafik yüküyle:>1,5 N/mm ² (1,0 min) (With trafficking:>1,5 N/mm ² (1,0 min))
Çarpmaya direnç (Impact resistance)	Sınıf 2 ≥ 10 Nm (Class II ≥ 10 Nm)
Yangına karşı tepki (Reaction to fire)	C-s1,d0
Tehlikeli maddeler (Dangerous substances)	Madde 5.4'e uygun (Comply with clause 5.4)