



SYSTEM DATA SHEET

KELMAR® T.E.

Kelmar®
waterproofing systems

Page 1 of 3

Totally Engineered Traffic Deck System

Description

The KELMAR® T.E. Traffic Deck System is engineered to meet the various traffic abrasion needs which exist within a parking garage environment. The KELMAR® T.E. System is a rapid curing, high-solids epoxy protective coating system with a proven history of performance. The KELMAR® T.E. System consists of a primer coat, a waterproofing membrane, an abrasion-resistant traffic-bearing wear course, which is seeded with aggregate for wear and skid resistance, and a top coat. The KELMAR® T.E. System maintains skid resistance throughout a long service life.

The KELMAR® T.E. System meets all requirements of ASTM C957 – Elastomeric Waterproofing Traffic Bearing Membrane.

Components

PRIMER: KELMAR® MONOBOND Epoxy Primer Resin and Hardener (Mix 1:1)

OR

KELMAR® DUALOX Water Based Epoxy Primer Resin and Hardener (Mix 1:1:1 water)

MEMBRANE: KELMAR® NEO V Membrane (Single Component)

WEAR COURSE: KELMAR® CWC Epoxy Wear Course Resin and Hardener (Mix 2:1)

OR

KELMAR® TE Epoxy Wear Course Resin and Hardener (Mix 1:1)

TOP COAT: KELMAR® 1910 UV Resistant Acrylic Top Coat (Single Component)

OR

KELMAR® 1920 UV Resistant Epoxy Top Coat Resin and Hardener (Mix 2:1)

AGGREGATE: Flint Silica or GS-20 Silica Sand or equivalent

Typical Uses

- Parking garages
- Areas requiring abrasion resistance combined with waterproofing needs
- Loading docks

Features

- Passes ASTM C957-15 Testing
- Prevents chloride ion penetration
- Bonded, elastic membrane
- High traction skid-resistant wear course
- Highly resistant to chemicals & corrosion
- Easily recoated
- Flame Spread (ASTM E84) – Class A

Limitations

- MUST be installed by an Approved Applicator
- Surface and air temperatures MUST be at least 10°C (50°F) during entire application and cure time

Application

- Surface must be checked for soundness and any hollow areas must be removed; All depressions, spalled areas and cracks must be pre-filled with approved products
- Concrete substrate must have laitance removed by shot blast method or diamond grinding
- Detailing work such as injection and treatment of control and expansion joints shall be according to specification recommendation
- Thickness adjusted for varying degrees of traffic exposure:
- Store material in a dry area 10°C to 27°C (50°F – 80°F)
- DO NOT FREEZE

R&D Technical Solutions Ltd.

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Page 2 of 3

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Theoretical Coverage

PRIMER -

KELMAR® MONOBOND - 401 ft²/gal @ 4 wet mils
KELMAR® DUALOX - 267 ft²/gal @ 6 wet mils

MEMBRANE -

KELMAR® NEO V - 50 ft²/gal @ 32 wet mils

WEAR COURSE -

KELMAR® CWC or TE – 89 ft²/gal @ 18 wet mils
70 ft²/gal @ 23 wet mils

Exposure 1 - Light Duty: 18 wet mils
-For pedestrian areas

Exposure 2 - Medium Duty: 23 wet mils
-For parking stalls and light to medium traffic

Exposure 3 - Heavy Duty: 23 + 23 wet mils
-For all driving lanes, ramps, high torque turning areas, entrance/exit areas and all exposed top deck areas that will be subject to snow plowing

Exposure 4 - Extra Heavy Duty: 23 + 23 + 23 wet mils
-For extra heavy traffic, shipping & receiving areas and areas of heavy truck/bus traffic, etc.

***Industrial areas may require thicker wearcourse layers –
Consult a Kelmar representative to be sure that the
correct traffic requirements are being met**

TOP COAT -

KELMAR® 1910 or 1920 - 100 ft²/gal @ 16 wet mils

- **COVERAGE WILL VARY DEPENDING ON
AGGREGATE SIZE**

Physical Properties

•Tensile Strength (ASTM D412)	1600 psi (11Mpa)
•Tensile Elongation (ASTM D412)	600% (membrane)
•Abrasion Resistance (ASTM C501)	0.044 g/1000 cycles
•Impact Resistance (Gardner Impact Test)	160 in/lb
•Test for Surface Burning Characteristics (ASTM E84)	
Flame Spread	14
Fuel Contribution	0
Smoke Development Class	241 A
•Hardness, Shore D (ASTM D2240)	71
•Waterproofing Traffic- Bearing Membrane (ASTM C957)	PASS
•Crack Bridging Ability (ASTM C1305)	PASS
•Adhesion-in-Peel (ASTM C794)	26.4 lbf Average On cement mortar after 7 day immersion

Safety Precautions

Please refer to product Safety Data Sheet

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Page 3 of 3

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Chemical Resistance testing (ASTM D1308) using spot-test procedure indicates KELMAR® T.E. is unaffected by the following:

Automotive Fluids:

Grease	Heptane
Motor Oil	Hexane
Transmission Oil	Anti-Freeze
Gasoline	

Inorganic Salts:

Calcium Chloride, 20%
Ammonium Chloride, 20%
Sodium Chloride, 20%
Inorganic Salts (cont'd):
Sodium Carbonate, 20%
Sodium Phosphate, 20%
Sodium Sulfate, 20%
Magnesium Sulfate, 20%

Solvents

Acetone
Methyl Ethyl Ketone
Denatured Alcohol
Butyl Alcohol
Butyl Acetate
Carbon Tetrachloride
Trichloroethylene
Cellosolve Solvent
Toluene
Xylene
Mineral Spirits

Organic Acids

Acetic 10%
Citric 20%
Lactic 40%
Gluconic 40%
Tartaric 40%

Inorganic Acids

Chromic 20%
Hydrochloric 30%
Nitric 40%
Hydrofluoric 20%
Phosphoric 50%
Sulphuric 60%

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