KELMAR® MERDEK

Kelmar® waterproofing systems

Flexible Epoxy/Urethane Hybrid Traffic Deck System

Description

The KELMAR® MERDEK Traffic Deck System is a rapid curing, low odor, high-solids epoxy/sand matrix which provides long service life with maintained skid resistance. The KELMAR® MERDEK Traffic Deck System consists of a waterproofing membrane, an abrasion-resistant traffic-bearing wear course - seeded with aggregate for durability and skid resistance - and an epoxy top coat.

Components

PRIMER: Not generally required depending on site conditions – consult a representative for details

MEMBRANE: KELMAR® MERDEK Membrane urethane/epoxy hybrid Resin and Hardener (Mix 2:1)

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

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

Optional - KELMAR® 1910 UV Resistant Acrylic Top Coat, Single Component

AGGREGATE: Flint Silica Sand or equivalent

Typical Uses

- As a waterproofing system for parking structures
- Mechanical equipment rooms
- Pedestrian walkways
- Balconies and terraces
- Plaza and rooftop decks
- Stadiums and arenas
- Wherever a waterproof floor is required

Features

- UV resistant
- No odor
- Provides a seamless wear course over waterproofing membrane
- Remains flexible over a wide range of temperatures
- Provides an excellent slip-resistant surface
- Resistant to automotive fluids and salts
- Available in a range of colors

Limitations

- MUST be installed by an Approved Applicator
- DO NOT USE in areas subjected to thermal shock
- NOT recommended for light weight concrete
- 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
- Wear Course thickness can be 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

Theoretical Coverage

MEMBRANE -

KELMAR® MERDEK - 80 ft^2/gal @ 20 wet mils
KELMAR® MERDEK - 64 ft^2/gal @ 25 wet mils

WEARCOURSE –

KELMAR® CWC - 114 ft^2/gal @ 14 wet mils

Medium Traffic: 14 wet mils
-For parking stalls and straight driving lanes

Heavy Traffic: 14 + 14 wet mils
-For ramps, high torque turning areas, entrance/exit areas and all exposed top deck areas that will be subject to snow plowing

Extra Heavy Traffic: 14 + 14 + 14 wet mils
-For shipping & receiving areas and areas of heavy truck/bus traffic, etc.

TOP COAT -

KELMAR® 1920 - 160 ft^2/gal @ 10 wet mils

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

R&D Technical Solutions Ltd.
7000 Davand Drive, Mississauga, ON L5T 1J5 Canada Tel: 905.795.9900 Toll Free: 800.387.5703 Fax: 905.795.9912
www.kelmar.com www.rdsolutions.ca

Revision Date: January 29, 2019

Flexible Epoxy/Urethane Hybrid Traffic Deck System

Physical Properties

Crack Bridging	
ASTM C1305	Passes
Tensile Strength	
ASTM D638	2000 psi 14 Mpa
Tensile Elongation	
ASTM D412	200% (membrane)
Adhesion to Concrete	
Elcometer	350 psi (100% substrate failure)
Hardness, Shore D	
ASTM D2240	71
Taber Abrasion	
ASTM D4060 (CS-17 wheels) (1000 cycles)	44mg weight loss @ 24^0 (75^0F)
Test for Surface Burning Characteristics	
ASTM E84	
Flame Spread	14
Fuel Contribution	0
Class	1 or A

Chemical Resistance

Testing in accordance with ASTM-D-1308 spot test procedure indicates that the KELMAR® MERDEK System is unaffected by the following reagents.

Automotive Fluids
Grease
Motor Oil
Transmission Oil
Anti-Freeze
Gasoline
Heptane
Hexane

Solvents
Acetone
Methyl Ethyl Ketone
Alcohol (Denatured)
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%
Hydroflouric Acid 20%
Phosphoric Acid 50%

Inorganic Salts
Calcium Chloride 20%
Ammonium Chloride 20%
Sodium Chloride 20%
Sodium Carbonate 20%
Sodium Phosphate 20%
Sodium Sulfate 20%
Magnesium Sulfate 20%
Ammonium Hydroxide (Conc)
Potassium Hydroxide 30%
Sodium Hydroxide 30%
Sodium Silicate 20%
Lime Water – Saturated Calcium - Hydroxide Solution

Safety Precautions

Please refer to product Safety Data Sheet

R&D Technical Solutions Ltd.
7000 Davand Drive, Mississauga, ON L5T 1J5 Canada Tel: 905.795.9900 Toll Free: 800.387.5703 Fax: 905.795.9912
www.kelmar.com www.rdsolutions.ca

Revision Date: January 29, 2019