



TBS SYSTEM DATA SHEET

TECHNICAL BARRIER SYSTEMS INC.



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KELMAR® T.E.

Totally Engineered Traffic Deck System

Description

Kelmar® T.E. is a solvent free, rapid curing 100% solids epoxy protective coating system. The system consists of a prime coat, waterproof membrane and an abrasion-resistant, Coal Tar Epoxy traffic-bearing wear course(s), which is seeded with aggregate for skid resistance. An optional topcoat is also available. Available in black only.

Typical Uses

- Parking Garages
- Areas requiring abrasion resistance combined with waterproofing needs.
- Loading docks
- Garbage Rooms

Advantages

- Prevents chloride ion penetration
- Class A, fire rating (ASTM E 84)
- Tenaciously bonded membrane
- Permanently elastic membrane
- High traction skid-resistant wear course
- High chemical & corrosion resistance
- Proven history of performance
- Easily re-coated

Features

The Kelmar® T.E. wear course is an epoxy sand matrix system which gives long service life, and maintains skid resistance throughout it's service life. The thickness of the Kelmar® T.E. system can be adjusted to

accommodate varying degrees of traffic exposure

Exposure 1: Light Duty

- For parking stalls or other areas exposed to light traffic

Exposure 2: Medium Duty

- For level traffic lanes and gradually sloping ramps, and for parking stalls in high traffic areas

Exposure 3: Heavy Duty

- For steep and / or helix ramps, high torque turning areas, and areas adjacent to ticket cashiers, drive lanes of commercial garages etc

Exposure 4: Extra Heavy Duty

- For heavy traffic in shipping and receiving areas, truck traffic etc.

Limitations

- Surface and air temperature must be at least 50° F (10° C) during installation and initial cure
- All substrate must be sound, clean, dry (ASTM D 4263) and free from all contaminants

Application

- Surface must be checked for soundness and any hollow areas must be removed. All depressions and spalled areas and cracks must be pre-filled with a product approved by TBS.

- Concrete substrate must have the laitance removed preferably by a shot blast method
- Detailing work such as injection and treatment of control and expansion joints shall be according to specification recommendation
- Must be installed by a TBS Approved Applicator

Maintenance

As on-going maintenance (housekeeping facility appearance), Kelmar® T.E. systems can be cleaned with a TBS power washer and media delivery system or on appropriate alkaline based cleaner.

Physical Properties

Tensile Strength	1600 psi (11 Mpa)
ASTM D 412	
Tensile Elongation	600% (membrane)
ASTM D 412	
Abrasion Resistance	.069 gm/1000 cycles
ASTM C 501	
Impact Resistance	160 in/lb
Gardner Impact Test	
Adhesion input	
ASTM C 957	Min 15-17 pli after water immersion on concrete
Test for Surface Burning Characteristics	
ASTM E 84	
Flame Spread	14
Fuel Contribution	0
Class	1 or A
Hardness, Shore D	
ASTM D 2240	71

Chemical Resistance

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

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

Inorganic Salts
Calcium Chloride 20%
Ammonium Chloride 20%
Sodium Chloride 20%
Sodium Carbonate 20%
Sodium Phosphate 20%
Sodium Sulfate 20%
Magnesium Sulfate 20%

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%
Hydrofluoric Acid 20%
Phosphoric Acid 50%
Sulphuric 60%

ALKALIS
Ammonium Hydroxide (Conc)
Potassium Hydroxide 30%
Sodium Hydroxide 30%
Sodium Silicate 20%
Lime Water – Saturated Calcium Hydroxide Solution

Thickness (Excluding aggregate)

Light duty	43 mils
Medium duty	48 mils
Heavy duty	71 mils
Extra Heavy Duty	94 mils

Safety Precautions

For industrial and professional use only. For detailed safety guidelines, please refer to the Material Safety Data sheets (MSDS).