

### CHEMILINK<sup>TM</sup> SS-141

# High Performance Topping Compound — for Semi-Rigid Pavement

#### **Description**

Chemilink™ SS-141 is a high performance polymer modified cementitious material. This material requires only the addition of water to produce a smooth and highly workable mixture. Chemilink™ SS-141 develops high strength very rapidly and has good durability as well. Chemilink™ SS-141 is the result of extensive research work and practice of latest nano-technology.

**Technical Data** 

Properties	Test Method	Chemilink™ SS-141
Flow value	ASTM C939 (Flow Cone Method)	12 ~ 28 Seconds
	JASS 15 M103	270 ~ 310 mm
Density	BS EN 12190	2100 ~ 2250 kg/m <sup>3</sup>
1-day Compressive Strength*	BS EN 12390-3	40 ~ 60 MPa
7-day Compressive Strength	BS EN 12390-3	70 ~ 90 MPa
28-day Compressive Strength	BS EN 12390-3	90 ~ 130 MPa
28-day Flexural Strength	BS EN 12190	6 ~ 10 MPa
Setting Time	EN 196 – 3	2~3 h, 3~6 h, 6~8 h

<sup>\*24</sup> hours from initial setting

#### **Advantages**

- Easy application due to easy gauging with water
- High workability
- High early and long-term strength

#### **Usages**

Topping grout for porous asphalt to form a semi-rigid pavement system

### Application Procedure

#### **Surface Preparation**

For semi-rigid pavement, surface preparation is not required.

#### **Mixing**

Mixing Chemilink™ SS-141 powder with approx. 25~30% by weight of water or as advised by Chemilink principal. Mechanical mixing is essential. Mixing must go on for 3 - 7 minutes depending on the speed of the mixing equipment.

Mixing should be carried out continuously to ensure a continued and even supply of homogeneous and lump-free mortar.

#### **Quality Check**

Check the workability of the mortar before placing.

#### **Spreading**

The temperature of open graded asphalt concrete should not exceed 60°C at the time of spreading Chemilink™ SS-141. Chemilink™ SS-141 should be spread within 30 minutes when it's fresh. It can easily be spread with a spacer equipped trowel. We strongly recommend that the spreading should be done at night time if apply in tropical regions.

#### **Package and Coverage**

Package: 25kg/bag, 0.5ton/Jumbo bag or 1ton/Jumbo bag

Coverage: For semi-rigid system, at 50mm thickness, 25 kg/m² for asphalt concrete at porosity around 25%

#### **Storage**

Chemilink™ SS-141 has a shelf life of 6 months if stored in a cool, dry place in sealed bag.

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**Appendix: Example of Chemilink™ SS-141 Application** 

#### 1. Properties of Finished Semi-Rigid Pavement (for reference only)

Properties	Test Method	Semi-Rigid Pavement
1-day Compressive Strength		5.0 ~ 8.0 MPa
8-day Compressive Strength	BS EN 12390-3	8.0 ~ 12.5 MPa
28-day Compressive Strength		8.0 ~ 15.0 MPa
Skid Resistance	SS 498	≥ 55 BPN
Flexural Strength	BS EN 12390-5	≥ 3.5 MPa

#### 2. Application Procedure



Open Graded Asphalt Concrete



Machine Mixing



Manual Mixing



Checking Fluidity



Checking Fluidity by P Funnel



Filling with Chemilink™SS-141



Raking and Brushing



Vibration (optional)



Right after Filling



Hardened

#### 3. Examples of Projects



Airport Parking Apron



**Expressway Entry Section** 



Airport Runway Entry Section
75mm x 2 layers



Turning Zone for Heavy Loading Vehicles



Airport Taxiway 75mm



Parking Area for Heavy Loading Vehicles





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#### **CHEMILINK™ TECHNOLOGIES & PRODUCTS**