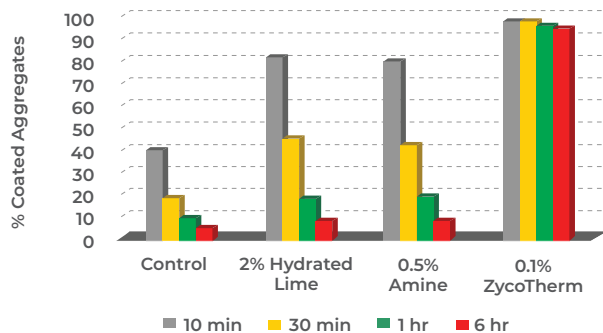


ZYCOTHERM Zydex

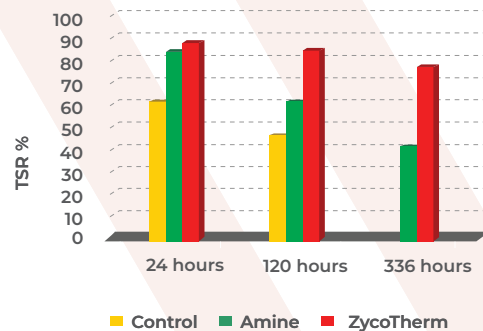
CHEMICAL BONDING

Unlike conventional antistriips which form a weak physical bond between the aggregate and bitumen, Zycotherm forms permanent chemical bonds between the aggregate surface and the bitumen. Due to the permanent nature of the chemical bond formed, there are significant gains with respect to moisture resistance, durability and overall life cycle costs for the pavement. Zycotherm is compatible with all aggregate types, works at significantly lower dosages compared to conventional antistriips and is an environmentally friendly additive that is non-corrosive and odor free.

ASTM D 3625 BOIL TEST

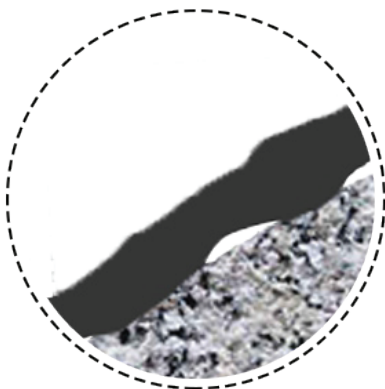


EXTENDED CONDITIONING
TSR COMPARISON

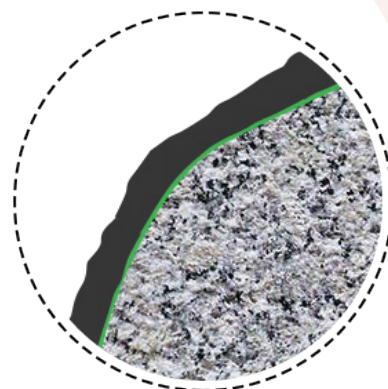


COMPLETE COATING

Zycotherm modified bitumen coats aggregate surfaces in a significantly faster and easier manner compared to conventional additives. The superior coating and wetting attributes of Zycotherm ensure easy coating of fines, better mixing of RAP and jet black looking mixes. The complete coating of aggregates by Zycotherm modified bitumen also leads to mixes that are free of pinholes and have reduced stripping and oxidative potential.



WITHOUT ZYCOTHERM



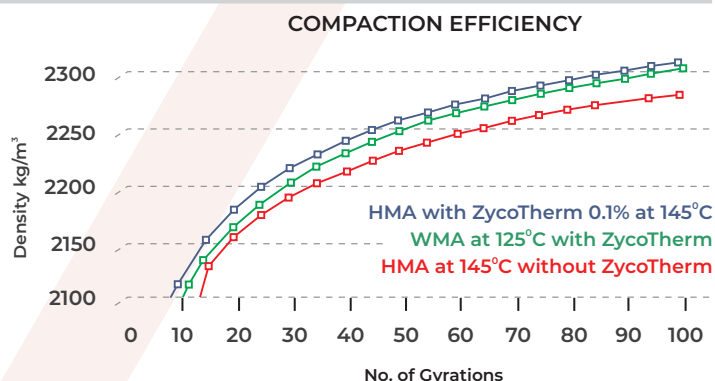
WITH ZYCOTHERM

ZYCO THERM

Zydex

CONSISTENT COMPACTION

ZycoTherm provides excellent warm mix asphalt benefits and reduces production temperatures to as low as 120°C (250°F). Consistent and easy compaction can be achieved up to temperatures of 98°C (210°F), thereby enabling longer hauls and cold climate paving.



DOSAGE

- " The typical dosage range for ZycoTherm is 0.03 to 0.1% by weight of the bitumen binder. If aggregate type and characteristics are known, refer to the table below for indicative dosages. Adjust the same based on mix testing.
- " It is critical that ZycoTherm be thoroughly mixed into the bitumen to ensure homogenous distribution of the product. Typically a high shear blender should be used for mixing.

ZycoTherm Dosage for Antistrip Benefits			AGGREGATE TYPE%	ZycoTherm Dosage for Antistrip and Warm Mix Benefits		
AGGREGATE WATER ABSORPTION %				AGGREGATE WATER ABSORPTION %		
0.5-0.8	0.9-1.4	1.5-2		0.5-0.8	0.9-1.4	1.5-2
0.03	0.03	0.05	Limestone, Dolomite	0.07	0.07	0.07
0.03	0.03	0.05	Basalt, Gabbro	0.07	0.07	0.1
0.03	0.05	0.05	Granite, Granodiorite, Rhyolite	0.07	0.07	0.1
0.03	0.05	0.1	Quartzite	0.1	0.1	0.1
0.03	0.07	0.1	Greywacke, Andesite, Sandstone	0.1	0.1	0.1

ADVANTAGES

Paving

- Reduced Odor
- Improved workability and compaction efficiency
- Improved mix flow & cleaner equipments
- Eliminates segregation of mixes
- Dark black look
- Extended paving season

Manufacturing

- Reduced Odor
- Cleaner tanks, coils & elevators
- Cleaner flights of the mixing chamber
- Lower mix temperature & fuel economy
- Higher RAP/RAS

Health and Environment

- Non corrosive
- Odor Free
- Health rating of 1
- TSCA Compliant
- REACH Compliant
- DSL Compliant

STORAGE & SHELF LIFE

ZycoTherm should be stored 41 – 113 °F (5 to 45 °C) in a shaded, dry area away from sunlight, heat, source of sparks, rain and standing water. The container lid should be securely fastened every time it is used. It's shelf life is 48 months. In case the product freezes at low temperatures, allow it to thaw and unfreeze.