

SPECIFICATION**ViaTherm EXT Alkyd Hot Applied Thermoplastic**

Item numbers: **9700037 for white** and **9700038 for yellow**

Intended Usage

ViaTherm is a hot applied thermoplastic pavement marking material designed to provide durable, retroreflective delineation of roadways, intersections, or other public and private pavement surfaces. Specifically designed for extrusion application methods on asphalt and non-bituminous surfaces.

- Material can be heated and will bond with the same material as well as with other thermoplastic materials provided the existing thermoplastic markings are less than 30 mils thick, and are securely bonded to the substrate.
- Material is compatible with asphalt surfaces and non-bituminous pavements (e.g. concrete, bricks, and cobblestones*). Material is capable of conforming to pavement contours, breaks and faults.

Product Composition

Shall be an alkyd based hot applied that conforms to specifications according to the City of Overland Park, KS Specification Section 1086.

Material is a 100% solid material and is a mixture of binder, pigments and glass beads that becomes molten/liquid when heated for application to pavement surface.

The material shall consist of an intermix of glass beads that conform to AASHTO designation M247 Type 1.

Product Characteristics

Characteristic	Standard	ViaTherm EXT-W	ViaTherm EXT-Y
Binder	AASHTO M249/T250	≥18.0%	≥18.0%
Titanium Dioxide	AASHTO M249/T250	≥10.0%	N/A
Glass Beads	AASHTO M249/T250	30-40%	30-40%
Lead Chromate	AASHTO M249/T250	N/A	N/A
Inert Fillers	AASHTO M249/T250	≤42.0%	≤50.0%
Reflectance	ASTM E1347	≥75%	≥45%
Softening Point	ASTM D36	215 ± 15°F	215 ± 15°F
Flowability Residue	AASHTO M249/T250 (4 hours)	≤18%	≤21%
Extended Flowability Residue	AASHTO M249/T250 (8.5 hours)	≤28%	≤28%
Shore A2 hardness	ASTM D2240	≥55	≥55
Abrasion Resistance	250g/H-22 Wheels/200 cycles/wet	≤0.5g	≤0.5g
Low Temp Impact Resistance	7.23N-m at -4 °F/ 10.5lb dropped 6" at -4°F	no fracture	no fracture
Water Absorption	ASTM D570	≤0.5%	≤0.5%
Yellowness Index	ASTM E313	≤0.12	N/A
Flash Point	ASTM D92	≥475 degees F	≥475 degees F
Cracking Resistance	concrete block cooled to 15±3°F	no cracks	no cracks
Retroreflectivity	ASTM E1710-97	≥350*	≥250*
*note: retroreflectivity is affected by drop on beads and application			

Pigments

White and yellow material must meet the requirements of Federal Standard Number 595 color chip 17875 for white and color chip 13538 for yellow. Color pigments must be organic and free of heavy metals.

Application and Equipment Recommendations

Surface must be clean, dry and free from oil, grease, antifreeze, loose sand, aggregate and any chipped or peeling existing striping. Any curing compounds must be mechanically removed prior to application.

Non-Bituminous Surfaces

Application on non-bituminous surfaces shall adhere to all of the requirements stated above. In addition, an approved sealer may be applied prior to application on non-bituminous surfaces.

Packaging

The material shall be packaged plastic air bags weighing 50lbs, with 40 bags stacked to a pallet totaling 1 ton. The material may be stored for up to 1 year. Keep the bags dry and protected from direct sunlight and stored below 120F.

For further information, please refer to the ViaTherm application instructions.

Manufacturing Control and ISO Certification

The manufacturer shall be ISO 9001:2015 certified and provide proof of current certification. The scope of the certification shall include manufacture of reflective highway markings.