KO-HERE® AS-1000
Asphalt Mix Performance-Improving Additive

TECHNICAL DATA SHEET

LIQUID ANTI-STRIP CHEMISTRY
KO-HERE AS-1000 is a liquid anti-strip that extends pavement life by creating chemical adhesion of asphalt to aggregate, protecting pavements from moisture damage and resulting distresses such as raveling, pothole development and rutting. KO-HERE AS-1000 is added directly to asphalt and is compatible with most asphalt types. KO-HERE AS-1000 is used to design mixes that conform to typical specifications, including AASHTO T283: Method of Test for Resistance of Compacted Bituminous Mixture to Moisture Induced Damage and AASHTO R35: Standard Practice for Superpave Volumetric Design.

APPLICATIONS
Asphalt Paving

FEATURES
PASSES TENSILE STRENGTH RATIO (TSR) TEST
Promotes better coating and chemical adhesion of asphalt to aggregate for dependable passing results with wide variety of asphalt and aggregate combinations

ECONOMICALLY COMPETITIVE
More economical additive option compared to traditional anti-strips

HEAT STABILITY
Remains effective for several weeks in hot asphalt

NO HEATED STORAGE REQUIRED
Easy to handle and pump in cold temperatures

USE KO-HERE AS-1000 WHEN YOU NEED:
- An economical anti-strip option with reliable TSR performance
- An additive that does not need to be heated
- An additive that is stable in hot asphalt

COMPATIBILITY
ASPHALT
Compatible with most asphalt types including those modified with styrene-butadiene-styrene (SBS), styrene-butadiene rubber (SBR), ethylene-vinyl acetate (EVA) polymers and ground tire rubber (GTR)

AGGREGATES
Compatible with various aggregate types including granite, diabase, diorite, basalt, chert, limestone, dolomite, marble, sandstone, natural sand, slag and recycled asphalt pavement (RAP)
OPTIONS FOR ADDING KO-HERE AS-1000 TO ASPHALT:

1. Add to asphalt storage tank and agitate mechanically or through pump circulation
2. Add at asphalt terminal by injecting into asphalt line as transport tanker is being charged
3. Add at asphalt mix plant by in-line injecting into the asphalt line (continuous plant) or weigh hopper (batch plant)

NEAT AND MODIFIED ASPHALTS:
- 0.25 – 1.0% by weight of total asphalt in mix
- Usage rate should be determined by user based on degree of aggregate coating and moisture sensitivity testing at desired production temperature

PHYSICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance, 77 °F (25 °C)</td>
<td>Dark-colored</td>
</tr>
<tr>
<td>Odor</td>
<td>Ammoniacal</td>
</tr>
<tr>
<td>Density, 77 °F (25 °C)</td>
<td>8.41 lb/gal (1.01 kg/L)</td>
</tr>
<tr>
<td>Viscosity, 77 °F (25 °C)</td>
<td>225 cP</td>
</tr>
<tr>
<td>TSCA Inventory</td>
<td>Listed</td>
</tr>
<tr>
<td>DSL Inventory</td>
<td>Listed</td>
</tr>
<tr>
<td>C.A.S. Number</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

The density and viscosity data reported are typical and not specifications. Typical ranges for density and viscosity values are ± 2 and ± 20%.

HANDLING AND STORAGE

Always handle KO-here AS-1000 in accordance with Safety Data Sheet (SDS) and Road Science Asphalt Additives Handling and Storage Guidelines document. Avoid product contamination with other materials. Do not store product in excess of 140 °F (60 °C) for prolonged periods. Recommended product handling temperature range is 50 – 120 °F (10 – 50 °C).

AVAILABILITY

KO-Here AS-1000 is available for shipment in bulk by rail car and tank truck. Packaged quantities are available in 275 gal/1,000 L IBC totes (2,200 lb/997.7 kg net weight) and 55 gal/208 L steel drums (440 lb/199.5 kg net weight).

TECHNICAL SUPPORT

To request additional product information, contact your regional Road Science representative. You can also contact us at 918-960-3800 or customerservice@roadscience.net, or visit our website at www.roadscience.net.