ArrTekk A-338 is an asphalt emulsifier chemical used to produce both cationic slow-setting (CSS-1, CSS-1h) and anionic slow-setting (SS-1, SS-1h) emulsions conforming to typical specifications, including AASHTO M-208 and M-140/ ASTM D-2397 and D-977. Slow-setting emulsions have the highest degree of stability and are used in a variety of asphalt pavement applications.

TECHNICAL DATA SHEET

CHEMISTRY FOR DURABLE TACK COAT EMULSIONS AND EASIER RECYCLING CONSTRUCTION

APPLICATIONS

- Tack Coat
- Fog Seal
- Mixing Grade Cold-In-Place Recycling (CIR)
- Mixing Grade Full-Depth Reclamation (FDR)
- Cold Central Plant Recycling (CCPR)
- Slow-Set Slurry Seal

FEATURES AND BENEFITS

BETTER EMULSION STABILITY
Smaller emulsion particle size yields better settlement, sieve and pumping shear stability for the most durable diluted and non-diluted tack coat emulsions

EASIER MIXING
Extended emulsion mixing time and easy coating properties with recycled asphalt pavement (RAP) and granular materials

EASIER CONSTRUCTABILITY
Ease of pick up, lay-down and compaction of RAP with recycling equipment with no premature emulsion breakage and stickiness to equipment

VERSATILE
Makes both cationic and anionic emulsions

EASY TO HANDLE, FASTER PRODUCTION
Low viscosity down to 60°F (16°C) eliminates need for heating during soap production

Compatiblity

ASPHALT
Easily emulsify all types, including paraffin-rich and Styrene-Butadiene-Styrene (SBS)-modified

POLYMER MODIFIERS
Compatible with Styrene-Butadiene Rubber (SBR) and acrylic latexes

AGGREGATES
Easily mixes and is compatible with RAP, limestone, granite and most other types of aggregate and granular base materials, even when damp and/or dusty

USE ARRTTEK A-338 WHEN YOU NEED:

- Tack coat and fog seal emulsions that remain stable during extended storage and after repeated pumping cycles
- Recycling emulsions that easily mix with, coat and adhere to recycled materials
- Recycling emulsions that do not break too quickly and create difficulties in CIR construction
- An easier to use emulsifier for faster production

ArrMaz
6502 South Yale Avenue, Suite 100, Tulsa, OK 74136 USA
+1-918-960-3800 | www.roadscience.net

Road Science®
Division of ArrMaz

6502 South Yale Avenue, Suite 100, Tulsa, OK 74136 USA
+1-918-960-3800 | www.roadscience.net
TYPICAL ASPHALT CONTENT IS 60 – 62%.
Percentages are by weight of emulsion (bwe).

**USAGE RECOMMENDATIONS**

The information contained herein is presented in good faith and believed to be accurate, however, ArrMaz Products, LP assumes no responsibility or liability for the information provided.

ArrMaz Products, LP further makes no representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature with respect to the information or the product(s) to which the information refers.

© 2018 ArrMaz Products, LP. All rights reserved. This material may not be reproduced, displayed, modified or distributed without the express prior written permission of the copyright holder.

Always handle ArrTekk products in accordance with safety data sheet (SDS) and proper safety procedures. Avoid product contamination with other materials. Do not heat product in excess of 120°F (49°C) for prolonged periods. Recommended product handling temperature range is 60 - 120°F (16 - 49°C).

To request additional product information, contact your regional Road Science representative. You can also contact us at +1-918-960-3800 or customerservice@roadscience.net, or visit our website at www.roadscience.net.

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

**PHYSICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Property:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance, 77 °F (25 °C)</td>
<td>Dark Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Amine, Resinous</td>
</tr>
<tr>
<td>Density, 77 °F (25 °C)</td>
<td>9.04 lb/gal (1.08 kg/L)</td>
</tr>
<tr>
<td>Viscosity, 77 °F (25 °C)</td>
<td>880 cP</td>
</tr>
<tr>
<td>Pour Point</td>
<td>&lt; 35 °F (2 °C)</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>

Typical Formulation | ArrTekk A-338, % bwe | Hydrochloric Acid (HCl) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS Mixing Grade, Slurry</td>
<td>1.6 – 2.0%</td>
<td>To soap pH of 1.5 – 2.5</td>
</tr>
<tr>
<td>CSS Tack Coat</td>
<td>1.2 – 1.8%</td>
<td>To soap pH of 1.5 – 2.5</td>
</tr>
<tr>
<td>SS Mixing Grade, Slurry</td>
<td>1.6 – 2.0%</td>
<td>None, use soap pH as-is</td>
</tr>
<tr>
<td>SS Tack Coat</td>
<td>1.2 – 1.8%</td>
<td>None, use soap pH as-is</td>
</tr>
</tbody>
</table>

ArrTekk A-338 is available outside of North America only.
ArrTekk A-338 is available for shipment in bulk by tank truck. Packaged quantities are available in 275 gal/1,041 L IBC totes (2,200 lb/997.9 kg net weight).

**HANDLING AND STORAGE**

**AVAILABILITY**

**TECHNICAL SUPPORT**

To request additional product information, contact your regional Road Science representative. You can also contact us at +1-918-960-3800 or customerservice@roadscience.net, or visit our website at www.roadscience.net.

The information contained herein is presented in good faith and believed to be accurate, however, ArrMaz Products, LP assumes no responsibility or liability for the information provided. ArrMaz Products, LP further makes no representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature with respect to the information or the product(s) to which the information refers.

© 2018 ArrMaz Products, LP. All rights reserved. This material may not be reproduced, displayed, modified or distributed without the express prior written permission of the copyright holder.