



THE CHEMICAL DIVISION OF COLAS

TCMC

Product Information

TCMC is a blend of fatty imidazolines and amidoamines designed for the manufacture of low-viscosity, fast-breaking emulsions using a wide range of bitumens including naphthenic bitumens.

Storage & Handling (refer to Chemoran guide)

TCMC must be protected from exposure to water. When mixed with water, a chemical reaction can occur which leads to a reduction in some of the emulsifier's properties. Water will sink to the bottom of the emulsifier container and form a clouded viscous layer. The clear unaffected emulsifier should be carefully decanted off without disturbing this layer and used as soon as possible.

TCMC must be protected from long-term exposure to atmospheric moisture. This takes place slowly on the emulsifier surface exposed to moist air. It is identified as a viscous clear skin which may lead to a reduction of product performance.

Formulation Example (refer to CST Technical Note N°129)

| Application | Bitumen Type & Dosage | TCMC Dosage | Aqueous Phase pH |
|------------------|------------------------|-------------|------------------|
| Surface dressing | 69% 160/220 naphthenic | 2.0 kg/t | 2.0 |
| Surface dressing | 69% 160/220 paraffinic | 2.0 kg/t | 2.5 |

Table of Parameters

| Characteristics | Methods | Specification | Typical Values |
|------------------------------|---------------|---------------|----------------|
| Physical state at 20°C | Visual test | Liquid | - |
| Alkalinity index (mgHCl/g) | MOPCST PC-006 | >225 | 245 |
| Flash point, closed cup (°C) | EN 22719 | >100 | - |
| Cloud point | CHEM 003 | - | <0°C |

Bulk storage tanks are more likely to experience this due to long storage periods and open vents. Smaller containers with small amounts of emulsifiers can be damaged on long storage especially if they are not fully sealed.

TCMC must be protected from frost. Continued cold weather storage can lead to major increase in the viscosity and some precipitation may take place at temperatures below the cloud point. If this occurs TCMC should be heated or agitated thoroughly to insure a homogeneous mixture before use.

Packing

IBC of 920kg

| Temp. | Density | Viscosity |
|-------|----------------------|-----------|
| °C | (g/cm ³) | (mPa.s) |
| 10 | 0.969 | 420 |
| 20 | 0.961 | 170 |
| 30 | 0.953 | 85 |
| 40 | 0.945 | 45 |
| 50 | 0.937 | 20 |