

Ethylene Glycol Antifreeze

For process cooling & AC systems

Performance Properties

Coolflow IGE is based on Ethylene Glycol and has been especially formulated for use as an Industrial Grade Secondary Refrigerant Antifreeze for use in Process Cooling, Refrigeration and Air Conditioning systems, where toxicity is not an issue.

Optimum Flow:

Coolflow IGE has improved heat transfer characteristics, including; lower Dynamic Viscosity and higher Thermal Conductivity. For detailed comparison please refer to the Fluid Performance Chart - available upon request.

Protection:

Coolflow IGE contains synergistic corrosion inhibitors to protect metals commonly found in such systems. It has been tested in accordance with BS5117 and found to meet BS6580 and ASTM D1384 corrosion standards.

Coolflow IGE also contains scale and biological inhibitors to help prevent fouling – thus promoting long operational life and high thermal efficiency.

Application

As per BSRIA guide BG 29/2012 all pipe-work systems should be clean and free from biological contamination and debris prior to commissioning. To minimise corrosion air ingress should be minimized. A pressurised system is best. Determine the total system volume and add **Coolflow IGE** to the system according to the minimum operating temperature required (see table). The minimum dose of **Coolflow IGE** should not be less than 25% of the system volume and the maximum does not normally exceed 60%. We recommend the use of deionised, distilled or UltraPure™ water for this dilution. Avoid water containing high levels of calcium salts or Chlorides [Cl⁻].

Coolflow IGE can also be supplied as a Ready-To-Use solution.

Diluting Concentrate

When measuring the percentage concentration of **Coolflow IGE** in solution we recommend the use of a recently calibrated refractometer.

Physical Properties

Frost Protection

-35°C depending on concentration.

Density

1.09 - 1.14g/cm³ depending on inhibitors

pH

7.5 - 9.0 depending on inhibitors

Boiling Point

>100°C

For operating temperatures above 100°C, refer to Hydratech for technical advice.

Characteristics

a clear, slightly viscous liquid. It is mildly sweet to the taste and has a non-pungent but characteristic aroma

Biodegradability

Coolflow IGE mixtures are readily biodegradable (90% over ten days) and will not remain in the environment or bio-accumulate.

Container Sizes

Available in: 5, 10, 25, 205L drums & 1000L IBCs

Frost Protection °C	v/v of Coolflow IGE %	Refractive Index
-10	20.0	1.35190
-15	27.0	1.35860
-20	32.0	1.36350
-25	37.0	1.36830
-30	41.0	1.37210
-35	45.0	1.37600

Fluid Management Services

To ensure inhibitor levels are being maintained and the system fluid is in good condition, we recommend periodic sampling and testing. Hydratech operate the Fluid Monitoring Program (FMP) service for all users of our products. For more information on the FMP please call or visit www.hydratech.co.uk.

Quality Assured

Coolflow IGE meets or exceeds the corrosion standards laid down in ASTM D-1384. Hydratech products are manufactured in accordance with ISO 9001: 2015 procedures.

Storage & Shelf Life

At least 3 years when stored in sealed containers, below 40°C and out of direct sunlight.

Health & Safety

Please refer to the associated Safety Data Sheet, which is available online via Login and/or by mail.

24/7 Technical Support

Technical support services and products to ensure ongoing system efficiency and protection.

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