

EGEN DLC RANGE

EGEN DLC range* is the next generation direct to chip cooling liquids with 1,3-propanediol, for efficient heat dissipation in high performance computing systems, chillers, and cooling loops. The fluids are compatible with a wide range of materials like brass, copper, stainless steel, aluminum and commonly used plastics. They are foam free, corrosion resistant, oxidation resistant and are stable at sub-zero temperatures, providing long-lasting performance. The coolant flows in the cooling loops with low pumping resistance and minimal pressure drops which help reduce pump power or allows the use of smaller pumps for the same flow rate. This improves overall cooling efficiency, especially at lower temperatures where standard glycols become more viscous.

The EGEN DLC range is made with Susterra® 1,3-propanediol which is a 100% sustainable and renewable sourced glycol. The non-toxic, anti-bacterial and biodegradable formulation of EGEN DLC fluids makes them safe and non-hazardous for shipping, storing and handling, thereby aligning increased heat transfer performance in a risk-free and environmentally responsible direction.

TYPICAL VALUES

| Properties | | Method | EGEN DLC 100R25 | EGEN DLC 100R55 |
|----------------------------------|------|---------------|-----------------|-----------------|
| Viscosity (cst) | 20°C | ASTM D7042 | 2.54 | 7.22 |
| | 40°C | | 1.55 | 3.75 |
| | 60°C | | 1.00 | 2.24 |
| Density (g.cm-3) | 20°C | ASTM D4052 | 1.019 | 1.040 |
| | 40°C | | 1.010 | 1.027 |
| | 60°C | | 1.001 | 1.015 |
| Reserve Alkalinity (ml HCl 0,1M) | | ASTM D1121 | 5.6 | 5.6 |
| pH | | | 8.60 | 8.60 |
| Heat Capacity (J.g-1.K-1) | 20°C | ASTM E1269 | 3.87 | 3.24 |
| | 40°C | | 3.95 | 3.46 |
| | 60°C | | 4.03 | 3.69 |
| Thermal Conductivity (W.m-1.K-1) | 20°C | ASTM D7896-19 | 0.462 | 0.346 |
| | 40°C | | 0.474 | 0.354 |
| | 60°C | | 0.486 | 0.362 |
| Freezing point (°C) | | ASTM D1177 | -10 | -36 |

*EGEN DLC fluids are also available with UV tracer and are yellow coloured for leak detection

MATERIALS COMPATIBILITY

This information represents a trend based on compatibility tests carried out to date and considering general knowledge of chemical compatibilities. We recommend that you carry out compatibility tests in your laboratory, as the compatibility of a material with fluid may vary from one material supplier to another.

| Material | Compatibility |
|--------------------------------|----------------|
| Metals | |
| Copper | Acceptable |
| Brass Brazing Alloy | Acceptable |
| Stainless steel | Acceptable |
| Aluminum | Acceptable |
| Bronze | Acceptable |
| Zinc | Acceptable |
| Seals/ O-Rings/ Gaskets | |
| Cellulose fiber | Not acceptable |
| EPDM | Acceptable |
| FFKM | Acceptable |
| Graphite | Not acceptable |
| HNBR | Acceptable |
| Adhesives/ Sealants | |
| Cyanoacrylate adhesive | Case-by-case |
| Epoxy adhesive | Acceptable |
| Polyurethane adhesive | Acceptable |
| Silicon adhesive | Acceptable |
| Others | |
| PEEK | Acceptable |
| PEI | Acceptable |
| PES | Acceptable |
| PET | Acceptable |
| PIB/IIR | Acceptable |
| POM | Acceptable |
| PP | Acceptable |

PRECAUTIONS

- Read the safety data sheet and take account of the recommendations given.
- Store indoors in a dry place. Recommended storage temperature between 10°C and 40°C.
- Close the container immediately after use if any product remains.
- Do not insert wet or dirty tools into the product or pour used product back into the container.
- Do not leave tools (pump, pipes, etc.) in the container for long periods.
- Check that the product is clear before use.