# ZITREC® EC 30

More than PG25

**ZITREC® EC 30** is a premium **Ethylene Glycol-based** direct-to-chip liquid coolant based on patented OAT-technology customised for data centers and other electronic applications.

Application: Direct to chip

Designed for:

Base fluid: EG

Technology: OAT

## Product Highlights

- Available in various EG concentrations
- No biofouling
- Brazing flux compensation package
- Excellent aluminium corrosion protetcion at elevated temperatures
- Option for leak detection package

## Key Features

| | |
|---|---|
| **Base Fluid** | Ethylene Glycol |
| **Technology** | Patented OAT Technology |
| **Characteristics** | • Compared to PG solutions<br>  • Lower viscosity (less pump power)<br>  • Higher heat conductivity<br>  • Lower freezing point (suitable for edge applications)<br>  • Expected to be readily biodegradable<br>• Biostatic matrix inhibiting growth of micro-organisms |
| **Corrosion protection** | High-temperature corrosion protection for aluminium, copper, stainless steel, brass, ... |
| **Compatibility** | High compatibility with most common elastomers and thermoplastics, ensuring integrity and performance of system components |
| **Colors** | Upon request |
| **Packaging** | • IBC 1000 L<br>• Drums 208/210 L<br>• Pails 20 L |
| **Safety** | • Nitrite-free<br>• Borate-free<br>• 2-EHA free |

# ZITREC® EC 30

## Chemicals and physical properties

| | ZITREC® EC 30 EG25 | ZITREC® EC 30 EG54 | Method |
|---|---|---|---|
| **Appearance** | Clear to slightly hazy | Clear to slightly hazy | Visual |
| **Ethylene glycol (EG)** | 25 vol% | 54 vol% | |
| **Freezing point** | -14°C | -45°C | ASTM D1177 |
| **Boiling point** | 103°C | 113°C | ASTM D1120 |
| **Reserve Alkalinity** | 2.4 ml | 3.1ml | ASTM D1121 |
| **Density (20°C)** | 1.045 kg/l | 1.083 kg/l | ASTM D5931 |
| **Density (15°C)** | 1.043 kg/l | 1.080 kg/l | ASTM D5931 |
| **Density (29.5°C)** | 1.039 kg/l | 1.074 kg/l | ASTM D5931 |
| **Refractive Index (20°C)** | 1.365 | 1.393 | ASTM D1218 |
| **pH (20°C)** | 8.7 | 8.5 | ASTM D1287 |
| **Mircobiological control-bacteria** | 0 cfu/ml | 0 cfu/ml | |
| **Nitrite, amine, phosphate, borate, silicate, 2-EHA** | - | - | |

## Shelflife and storage requirements

ZITREC® EC 30 EG can be stored for minimum 36 months in unopened recipient without any effect on the product quality or performance. It is strongly recommended to use new non-translucent containers and where possible packages with a UV filter. Direct sunlight and high temperatures can degrade the quality of the product. ZITREC® EC 30 EG should be stored below 30°C, the minimum temperature depends on the EG concentration. Periods of exposure to temperatures above 35°C in combination with direct sunlight should be minimised.

# ZITREC® EC 30

## Compatibility and mixability

ZITREC® EC 30 is compatible with most other heat transfer media based on water, propylene glycol (PG) or ethylene glycol (EG). Exclusive use is however recommended for optimum corrosion protection and sludge control. ZITREC® EC 30 is not compatible with galvanized steel.

## Toxicity and safety

For toxicity information, safe handling and disposal of the product, we refer to the Safety Data Sheet.

## Sustainability

**1. Reduced Product Carbon Footprint (PCF)**
ZITREC® EC 30 is also available as ECO coolant offering a significantly reduced PCF compared to the virgin fossil-based equivalent, with no compromise on quality or performance. Our ZITREC® EC 30 ECO incorporate base fluids derived from bio-based or recycled raw materials, allocated through a certified mass balance approach.

**2. Responsible water management**
The demineralised water utilised in our product manufacturing is sourced from local surface water and processed through an advanced water treatment method, thereby decreasing dependence on municipal drinking water supplies.

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# ZITREC® EC 30

## Positioning within the product range

| | ZITREC® EC 10 | ZITREC® EC 20 | ZITREC® EC 30 | ZITREC® EC 40 |
|---|---|---|---|---|
| **Base Fluid** | Water | PG | PG or EG | PG or EG |
| **Technology** | OAT | OAT | OAT | OAT |
| **Most important characteristics** | • Water-based & biostatic (without use of biocides[1])<br>• Globally non-classified<br>• High protection of all wetted materials | • Excellent aluminium corrosion protection at elevated temperatures<br>• Globally non-classified | • Excellent aluminium corrosion protection at elevated temperatures, including a brazing flux compensation package<br>• Globally non-classified | • Reduced electrical conductivity, mitigating the effects of a short circuit<br>• Globally non-classified |
| **Freezing point** | 0°C | -11°C (PG25) | -14°C (EG25) | -14°C (EG25) |
| **Boiling point** | 100C | 105°C (PG25) | 103°C (EG25) | 111°C (EG25) |
| **Concentrate available** | ✓ | ✓ | | |
| **Leak detection package** | ✓ | ✓ | ✓ | |
| **Readily biodegradable** | ✓ | ✓ | ✓ | ✓ |
| **Low toxicity** | ✓ | ✓ | ✓ * | ✓ * |
| **Bacteriostatic** | ✓ | ✓ | ✓ | ✓ |
| **Corrosion protection** | Corrosion protection for aluminium, copper, stainless steel, brass, ... | | | |
| **Compatibility** | High compatibility with various elastomers and thermoplastics, ensuring integrity and performance of system components. | | | |

[1]*These products contain no intentionally added biocides.*
** Applicable for the PG-based version*

**Want to know more?**

**Scan the QR-code or contact us via support_liquidcooling@arteco-coolants.com**