ZITREC® EC 20

More than PG25

ZITREC® EC 20 is a premium ready to use **PG25** 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: PG

Technology: **OAT**

Product Highlights

- No biofouling
- Globally non-classified
- Excellent aluminium protection at elevated temperatures
- Qualified as NVIDIA DSX Ready Coolant
- Meets OCP Accepted™ standards

Key Features

Base Fluid	Propylene Glycol
Technology	Patented OAT Technology
Characteristics	• Long term compatibility for all wetted materials at elevated temperatures • Expected to be readily biodegradable • 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

Offering	Available as PG25, PG55 and concentrate
Colors	Upon request
Packaging	• IBC 1000 L • Drums 208/210 L • Pails 20 L
Safety	• Nitrite-free • Borate-free • 2-EHA free • Non-classified

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Chemical and physical properties

	ZITREC® EC 20 PG25	Method	OCP requirements	NVIDIA requirements
Appearance	Clear liquid	Visual		Clear and particulate free
Propylene glycol	25 vol%		24.5 – 27.5 vol%	24.5 – 27.5 vol%
Propylene glycol purity	99.5 wt%	ASTM D7922	≥ 99.5%	≥ 99.5%
Freezing point	-11°C	ASTM D1177	-13°C to -10°C	-13°C to -10°C
Nitrite, amine, phosphate, borate, silicate, 2-EHA	-			
Reserve Alkalinity	2.9 ml	ASTM D1121	To report	> 1.5 ml
Density (20°C)	1.028 kg/l	ASTM D5931		
Density (15°C)	1.030 kg/l	ASTM D5931		
Refractive Index (20°C)	1.336	ASTM D1218		
pH (20°C)	8.7	ASTM D1287	8.0 – 10.5	7.0 – 10.5
Total hardness as $CaCO_3$	0 ppm	ICP	< 25	<25
Turbidity	1 NTU			
Sulfate	0 ppm	IC	< 10	< 10
Chloride	0 ppm	IC	< 10	< 5
Microbiological control-bacteria	0 cfu/ml		< 1	
Dynamic Viscosity (20°C)	3.0 cP	ASTM D2983		
Specific Heat (20°C)	3.91 kJ/kg.K	ASTM D7896		
Thermal Conductivity (20°C)	0.457 W/mK	ASTM D7896		

Shelflife and storage requirements

ZITREC® EC 20 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 an UV filter. Direct sunlight and high temperatures can. degrade the quality of the product. ZITREC® EC 20 should be stored **below 30°C**, the minimum temperature depends on the PG concentration. Periods of exposure to temperatures above 35°C in combination with direct sunlight should be minimised.

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Compatibility and mixability

ZITREC® EC 20 is compatible with most other heat transfer media based on Propylene Glycol (PG) or Ethylene Glycol (EG). Exclusive use is however recommended for optimum corrosion protection and sludge control. ZITREC® EC 20 is not compatible with galvanized steel.

Sustainability

1. Reduced Product Carbon Footprint (PCF)

ZITREC® EC 20 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 20 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.

Tailored add-ons

- ✓ **Leak Detection Package**
  Allows leak locations to be identified quickly, enhancing operational safety.
- ✓ **PG55 booster and concentrate option**
  Enhances handling efficiency, reduces transport and storage footprint, and enables flexible on-site dilution.
- ✓ **Fluid analysis program**
  Provides proactive coolant-condition monitoring to support optimized service intervals.

Toxicity and safety

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

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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]) • Globally non-classified • High protection of all wetted materials	• Excellent aluminium corrosion protection at elevated temperatures • Globally non-classified	• Excellent aluminium corrosion protection at elevated temperatures, including a brazing flux compensation package • Globally non-classified	• Reduced electrical conductivity, mitigating the effects of a short circuit • 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