

CARPEMAR



September-2019



Carpemar

COMPANY PRESENTATION

The Carpemar Group has actually more than 40 years of expertise as a provider in the energy sector. Since 1968, Carpemar achieves with the necessary know-how to assimilate new developments and to work side-by-side with the clients.

Thanks to a strategically favorable situation, we are delivering from our facilities at Saragossa a quick and efficient service all over Spain and across Europe.

Carpemar is strongly committed to research, development and innovation. Therefore are generated new products, that are developed for example by a customer's wish or a as an initiative of our own R&D department. Such innovations allow us to anticipate the demands of the market.

The company strengthened the R&D commitment by signing agreements with universities, foundations and public institutions for the development and validation of new products.

The product quality of Carpemar is reflected in the successful certifications. In 2009, for our basic propylene glycol based anti-freeze protection Blue Sun it has been achieved the certification according to the standards ASTM 3306 and AA-52624A, in the well regarded INTA. Hence, we were the first producer that was awarded such certification of propylene glycol based anti-freeze protection according to these standards in the INTA laboratory. In addition, the product Propylene Glycol Coolant has received the NSF HT1 certification for its use in the food industry. At the moment, we're the only Spanish company with such certification for antifreeze.

In 2015 the commercial work for exportation is intensified, in different sectors, achieving in a wider spread knowledge of our products and clients' loyalty. In that way we are growing as a company, being present actually in more than 21 countries.

In the year 2008 Carpemar could also certify the standard ISO 9001:2000. It is our objective to improve the communication with our clients and to constantly control and meet the high quality standard level that we require to ourselves. At the moment we are introducing the standard ISO 14.000, previously to the next certification.

Two further important goals of Carpemar are the environmental protection and the sustainability. In this sense, by the selection of both supplied materials and suppliers, we always develop our products in order to generate the least environmental impact. We neither use products that could harm the staff or the end customer.

We have a complete laboratory at our disposal, for analyzing heat transfer fluids. Such analysis is part of the preventing maintenance of installations. It's an additional service for our clients that is always at our clients' disposal for resolving doubts about the liquid's condition. Our Technical Department is always ready to answer questions of all kind.

We can offer a complete range of products, customized as trademark or private label, with product formula on demand of the client, filled in containers from 1 to 1000 liters and also as a bulk good, always with a high quality standard and at a competitive price.

HEAT TRANSFER FLUIDS:

Blue Sun®



- Coolant-Antifreeze based on Propylene glycol.
- Non toxic, biodegradable.
- Organic antirust inhibitors for durable protection for all habitual metals.
- Delivery form: Concentrate (94% Propylene Glycol)
 Ready to use Protection till -15°C (30% Propylene Glycol)
 Ready to use Protection till -28°C (42% Propylene Glycol)
 Ready to use Protection till -30°C (45% Propylene Glycol)
 Ready to use Protection till -37°C (50% Propylene Glycol)
- Certifications: **INTA:** ASTM 3306 (includes ASTM 1384 y ASTM 4340)
 BELGAQUA (Belgium)

Delivery form/ERP(€)	5 liter	10 liter	20 liter	220 liter
Concentrate				
-15°C				
-28°C				
-30 °C				
-37°C				

Thermosol



- Excellent/High resistance against the degradation due to high temperatures.
- Based on glycols with a high boiling point
- Non toxic, biodegradable.
- Organic antirust inhibitors for durable protection for all habitual metals.
- Delivery form: Concentrate (90% Glycols)
 Ready to use Protection till -28°C (50% Glycols)

Delivery form/ERP (€)	5 liter	10 liter	20 liter	220 liter
Concentrate				
-28°C				

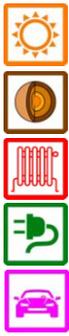
Green Sun



- Coolant-Antifreeze based on Propylene glycol from renewable resources.
- Based on an isomer more resistant against cracking at high temperatures
- Lower viscosity at high temperature: less energy cost for pumping.
- Organic antirust inhibitors for durable protection for all habitual metals.
- Delivery form: Ready to use Protection till -15°C

Delivery form/ERP (€)	5 liter	10 liter	20 liter	220 liter
-15°C				

Liquid Sun



- Coolant-Antifreeze based on Propylene glycol.
- Organic antirust inhibitors.
- High quality product for any solar thermal flat panel installation.
- Delivery form: Concentrate (92% Propylene Glycol)
Ready to use Protection till -20°C (35% Propylene Glycol)

Delivery form/ERP (€)	5 liter	10 liter	20 liter	220 liter
Concentrate				
-20°C				

Solar Coolant



- Coolant-Antifreeze based on Propylene glycol.
- Hybrid organic-inorganic antirust inhibitors.
- Competitive price for an efficient and reliable product for more than 20 years.
- Delivery form: Concentrate. (90% Propylene Glycol)
Ready to use Protection till -12°C (25% Propylene Glycol)

Delivery form/ERP (€)	5 liter	10 liter	20 liter	220 liter
Concentrate				
-12°C				

Propylene Glycol Coolant NSF



- Homologated by NSF as HT1 (Incidental contact with food)
- Coolant-Antifreeze based on Propylene glycol.
- Non toxic, biodegradable.
- Protects the metal elements of the circuit against the corrosion.
- Delivery form: Concentrate (90% Propylene Glycol)
Ready to use Protection till -18°C (35% Propylene Glycol)

Delivery form/ERP (€)	25 Kg.	220 Kg.	1.000 Kg.
Concentrate			
-18°C (35%)			

Propylene Glycol USP



- Meets with USP standard.
- For Systems where exists the possibility for an incidental contact with food
- Non toxic, biodegradable.
- Doesn't protect against the corrosion, but against the freezing.
- Delivery form: Concentrate (99,95% Propylene Glycol)

Delivery form/ERP (€)	25 kg	220 kg	1.000 kg
Concentrate			

Luzar Organic



- Coolant-Antifreeze based on Mono Ethylene Glycol.
- Organic antirust inhibitors
- Delivery form: Concentrate
 - Ready to use Protection till. -40°C (50% Ethylene Glycol)
 - Ready to use Protection till. -18°C (30% Ethylene Glycol)
 - Ready to use Protection till -10°C (20% Ethylene Glycol)

Delivery form/ERP (€)	10 liter	25 liter	220 liter
Concentrate			
-40 °C			
-18°C			
-10°C			

Non Conductive Coolant



- Heat transfer liquid for electric or electronic systems where conductivity close to zero is required.
- Conductivity less than de 50 $\mu\text{S}/\text{cm}$ in the range of -28°C to 100°C.
- Non toxic, harmless, not inflammable, biodegradable.
- Better heat transfer properties than thermal oils.
- Delivery form: Ready to use Protection till -28°C

Delivery form/ERP (€)	20 liter	220 liter	1.000 liter
-28°C			

Luzar Synthetic / Mineral Oil



- Oils for high thermal demand.
- Low viscosity, long service life, optimum heat transfer.
- Can be used in both open-loop and closed-loop systems.
- Temperature range:
 - Mineral -10°C to 310 °C (Closed-loop system)
 - Synthetic: -30°C to 320°C (Closed-loop system)

Delivery form/ERP (€)	20 liter	220 liter	1.000 liter
Mineral			
Synthetic			

Brine Fluid



- Antifreeze for low temperatures without glycol.
- Better heat transfer, low viscosity at low temperatures for cooling circuits.
- Valid for food industry, not toxic.
- Delivery form:
 - Ready to use Protection till -20°C
 - Ready to use Protection till -40°C

Delivery form	20 liter	220 liter	1.000 liter
-20°C			
-40°C			

ANTIRRUST AND CLEANING PRODUCTS:

Solar Protection



- Water based antirust and antiscaling concentrate
- Antirust protection where frost protection is not required.
- Low dosage, long term protection of the inhibitors.
- Dosing rate: 1-4% V/V, Old-Rusty systems: 3-7% V/V.
- Delivery form: Concentrate.

Delivery form/ERP (€)	5 liter	10 liter	20 liter	220 liter
Concentrate				

CS - Descal



- Descaling cleaner for inox, copper and brass.
- Formulated with 100% biodegradable and natural acid.
- Non toxic product. Non corrosive vapors.
- Highly Concentrate (1 liter dissolves 500 grams of limescale).
- Fast effectiveness.
- Change color (red to yellow) when active material is depleted.
- Recommended dosing rate: 2% - 10% V/V.

Delivery form/ERP (€)	2 liter	10 liter
Concentrate		

Luzar LTV



- Dissolve degradation products of overheated antifreeze in the circuit.
- Restores the flow in blocked systems.
- Suitable for solar thermal energy systems, industrial circuits and automotive sector.
- Delivery form: Concentrate: Dosing rate 20%.
Ready to use.

Delivery form/ERP (€)	2 liter	20 liter
Concentrate		
Ready to use		

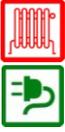
Antirust-Anti-scaling-Anti-algae inhibitor (Luzar 7 SR)



- Antirust inhibitor based on organic acids, for all kinds of metal.
- Long term effective without the necessity to measure periodically the residuals.
- Includes active ingredients against biomass growth.
- Includes anti-scaling, dissolves old scaling deposits and avoids new.
- Dosing rate: 1 kg per 100 liter of water in the circuit.
Approx. 1 kg per 95 m² underfloor heated surface.

Delivery form/ERP (€)	2 kg	20 kg
Concentrate		

Cleaning Additive (Luzar LD)



- Cleans the rust and scaling of a system, avoiding cold parts.
- Contains a protection additive for metal pieces in the system.
- Good performance also for low temperature cleaning (underfloor heating)
- Dosing rate: 1,5 kg per 200 liter of water in the circuit.
Approx. 1 kg per 125 m² underfloor heated surface.

Delivery form/ERP (€)	2 kg	20 kg
Concentrate		

OTHER CHEMICAL SPECIALTIES:

Mortar Additive



- Fluidifying - plastifying mortar additive.
- Improves the mortar quality.
- Improves the tubes' covering and the heat transmission.
- In plasticizing mortars, higher resistance against thermal expansion.
- No increase of hardening time.
- Dosing rate: 1.0 – 1.5 % of cement weight.
Approx. 37,5 gr/m² and cm covering over pipes.

Delivery form/ERP (€)	10 kg	25 kg
Concentrate		

Luzar Sealing



- Sealing for water heating circuits
- Permanent sealing of leaks in metal and plastic
- Quick effect with the system running.
- Dosing rate: 1 liter per 100 liter of water in the circuit.

Delivery form/ERP (€)	2 Kg	10 Kg
Concentrate		

ICONS MEANING



Solar Thermal Energy

Wind Energy

Geothermal energy

Industry



Heating-Underfloor heating

Food Industry

Automotive Industry

ACCESSORIES:

Refractometer



- Optical Checker for antifreezes.
- Scales for Propylene Glycol, Ethylene Glycol and Battery Electrolyte.
- Automatic Temperature Compensation (0-30°C).
- Kit containing: Refractometer, instructions in English, pipette and screwdriver for calibration.

Delivery form	ERP (€)
<i>Kit refractometer</i>	

pH Strips



- Quick and Easy measurement of pH for antifreeze.
- Plastic Strips, easy handling, no discoloration.
- Scale from 0 to 14
- 100 strips per box.

Delivery form	ERP (€)
<i>Box with 100 strips</i>	

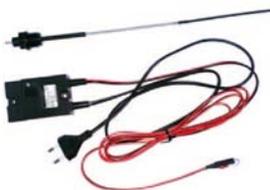
Filling station



- For filling and maintaining thermal installations.
- Powerful pump with maximum flow of 31 liter/minute and till 5,9 bar.
- 30 liters scaled tank with wide opening, leak-proof screw cap.
- Fine filter with vision panel ahead of the pump.
- Strong equipment and suitable to transport anywhere.
- Instruction in English.

Delivery form	ERP (€)
<i>Box 1 piece</i>	

Galvanic anode



- Protection anode for water tanks without maintenance.
- Suitable for vitreous enamelled water tanks and antirust treatment.
- Indication of correct or failing order by incorporated LEDs
- External (male) thread 1/2".

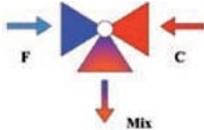
Delivery form	Measures	Tank capacity	ERP (€)
Anode 1000	1/2 " 1x 250/125 mm	Max. 1.000 liter	
Anode 2500	1/2 " 1x 500/200 mm	Max. 2.500 liter	
Anode 6000	1/2 " 2x 500/200 mm	Max. 6.000 liter	

VALVES AND ACCESSORIES:

Thermostatic high temperature mixing valves

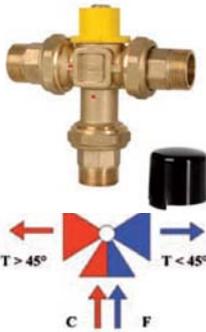


- Thermostatic mixers for domestic hot water.
- Temperature range: 30 a 60°C.
- Maintains the temperature of the mixing water constant in the consumption points regardless of the pressure or temperature variations in the service of hot and cold water.
- Equipped with burn-proof safety system: the flow of hot water is shut off automatically as soon as cold water is missing at the mixer inlet.
- The type S102 is equipped with two check valves placed at the hot and cold water inlets in order to prevent any undesired fluid returns to the system.
- Reliable service and proven at low quality water and elevated hardness.



Valve/ Connection	1/2 "	3/4 "	1"
S-100 Racord M (€)			
S-101 Female (€)			
S-102 Racord M (€)			

Diverting thermostatic valve



- Diverting thermostatic valve for drinking water at high temperature.
- Deviation temperature 45°C, directing the water one way or the other depending on if the temperature is higher or lower than 45°C.
- Suitable for directing the water preheated by solar energy either through the auxiliary system or directly for consumption.
- Hydraulic working, without motors, programming or electricity.

Valve/ Connection	1/2 "	3/4 "
S-105 Racord M (€)		

Integration Kit



- Integration kit between the solar panel and the boiler for the production of hot sanitary water.
- The kit includes one 45°C diverting valve and one mixing valve; temperature setting 30-60°C.
- Available with the protection shell.

Connection	ERP (€) 3/4 "
S-170	
S-172 (Protection shell)	

Safety Valve for Solar Energy



- Robust design that resists the habitual high temperatures of the solar energy systems (max. working temperature 160°C).
- Female connection and outlet.
- Other safety pressures on demand.

Valve	Pressure (Bar)	ERP (€) 1/2 "	ERP (€) 3/4 "
S-120	3,5		
S-120	6		
S-120	8		

High temperature air vent valve and gauge tap for gases



- Suitable materials for resisting the habitual high temperatures of the solar energy systems (max. working temperature 160°C).
- Gauge tap for gases, small passing diameter that strongly restricts the flow for liquids.

Article	Connection	ERP (€)
S-110 (Air vent valve)	1/2" Male	
S-136 (Gauge tap)	1/2" Male - Female	

Inline deaerator



- Active separation air and micro-bubbles in the water or water-glycol circuit
- Can be installed in any point of the circuit, not necessarily the highest.
- 10 bar max. working pressure, temperature range -30°C a 160°C.
- Very low pressure losses

Connection	ERP (€)
Female 1"	
Female 1 1/4 "	
Female 1 1/2 "	

Dirt Separator / Magnetic Dirt Separator



- Elimination of solids in the circuit equivalent to a filtration of 5 µm.
- Minimum pressure loss, the solids are gathered in the collection chamber without affecting the pressure loss of the separator, the system keeps working.
- Easy to clean by opening the drain cock.
- Max. Operating pressure 10 bar. Max. Temperature: 110°C.
- Optionally magnetic capture of solids in order to avoid the gathering of solids at the electronic impeller pumps.

Connection	ERP (€)	Magnetic ERP (€)
Female 1"		
Female 1 1/4 "		
Female 1 1/2 "		

FILTRATION - WATER TREATMENT:

EMI Filter Housings



- Two pieces filter housings with pressure relief valve and brass inserts.
- With double o-rings for leak proof protection.
- BPA free
- Transparent or white bowl.
- Max. Working pressure 8 bar, working temperature: 0 to 30°C.

Reference	5"			10"		
Connection	1/2 "	3/4 "	1"	1/2 "	3/4 "	1"
ERP (€) Filter housing						
ERP (€) Kit incl. mounting bracket, screws						

Filter housing WFU



- Two pieces filter housing, with pressure relief valve.
- Plastic exchangeable quick connections for easy installation without tools.
- With double o-rings for leak proof protection.
- BPA free
- Transparent or white bowl.
- Max. working pressure 8 bars, working temperature: 0 to 30°C.

Article	5"	10"
ERP (€) KIT with mounting bracket, screws, 2 connections 3/4 "		

Accessories Connection	1/2 " M	3/4 " M	1" M	serial (1 unit)	Quick connection 1/4 "
ERP (€) 2 units					

Filter housing BIG BLUE



- Two pieces filter housing, with pressure relief valve.
- Max. working pressure 6 bar, working temperature: 0 to 40°C.
- Good compatibility with chemical products.
- Screw connection 1" with brass insert.

Article	10"	20"	Bracket	Wrench
ERP (€)				

Hot Water Filter housing



- Two pieces filter housings with pressure relief valve and brass inserts.
- Max. working pressure 6 bars, working temperature: 0 a 95°C.
- Compatible with 10" standard housings existing on the market.
- Available in polyamide and stainless steel housing.

Article	Polyamide	Stainless steel
Connection	3/4 "	3/4 "
ERP (€) KIT with mounting bracket and screw		

PHYSICAL FILTRATION

Yarn Cartridges



- Remove sand, silt and rust.
- Gradient pore structure increases cartridge life.
- Standard working temperature 0-45°C, HOT version: 0-80°C.
- Available filter sizes 5 and 50 µm.

Size	5''	10''	10'' BB	20'' BB
Flow rate (liter/minute)	15	25	40	60
ERP (€) Standard version				
ERP (€) HOT version				

Net Cartridges



- Remove sand, silt and rust.
- Reusable, stiffened construction.
- Standard working temperature 0-70°C.
- Available filter size: 70 µm.

Size	5''	10''
Flow rate (liter/minute)	20	30
ERP (€)		

Net Stainless Steel Cartridges



- Remove sand, silt and rust.
- Reusable.
- Standard working temperature 0-95°C.
- Available filter size 150 µm.
- Resistant to most chemicals.

Size	10''
Flow rate (liter/minute)	30
ERP (€)	

Ceramic Cartridges



- In order to obtain microfiltered water.
- Remove sand, silt and rust.
- Filter size 0,3 µm, retain bacteria larger than that size.
- Reusable up to 6 times after washing.

Size	10''
Flow rate (liter/minute)	3
ERP (€)	

CHEMICAL WATER TREATMENT

Polyphosphate Cartridges / Silicon-Polyphosphate



- Polyphosphate: Protect from scale formation. Dissolve existing scale deposits.
- Silicon-Polyphosphate avoids corrosion of steel elements in the system.
- Working temperature 0-40°C.
- Prefiltration to 5 µm, partial elimination of existing solids.

Product	Polyphosphate	Silicon-Polyphosphate
Size	10''	10''
Flow rate (liter/minute)	10	10
ERP (€)		

Cartridges with Granulated Activated Carbon



- Remove chlorine and organic substances.
- Improve taste and smell of water.
- Standard working temperature 0-40°C.
- Prefiltration to 5 µm, partial elimination of existing solids.

Size	5''	10''	10'' BB	20'' BB
Flow rate (liter/minute)	4	6	12	18
ERP (€)				

Iron and Manganese Removal Cartridges



- Remove dissolved iron and manganese from water.
- Prevent from stain formation.
- Working temperature 0-40°C.
- Prefiltration to 5 µm, partial elimination of existing solids.

Size	10''	10'' BB	20'' BB
Flow rate (liter/minute)	5	12	20
ERP (€)			

Cartridges for Arsenic, Fluorides and Heavy Metals Removal



- Reduction of arsenic contents below 10 µg/liter without affecting the chemical composition of water.
- Remove fluorides and heavy metals.
- Working temperature 0-40°C.
- Prefiltration to 5 µm, partial elimination of existing solids.

Size	10''
Flow rate (liter/minute)	5
ERP (€)	

Condensate Neutralizer



- Adequation of the pH of condensate from a condensing boiler according to legislation.
- Neutralize the dissolved CO₂ in water leaving its pH above 6.
- Working temperature 0-40°C.

Size	Mini	10''
Flow rate (liter/h)	10	18
Max. Boiler Power	50 KW	100 KW
ERP (€)		

Washing machine and dishwasher filters



- Protect the house appliances from scale deposition
- Extend the service life and increase effectiveness of detergents.
- Connection 3/4'', working temperature 0-30°C. Max. working pressure 6 bar.
- Prefiltration to 5 µm, partial elimination of existing solids.

Size	10''
Approx. water treatment per filter	6.000 liter
ERP (€)	

Shower Filters



- Reduce chlorine and organic substances which make skin dry and cause allergies.
- Filtration with coconut shell activated carbon
- Connection 1/2''.
- Working temperature 0-60°C. Max. working pressure 6 bar.
- Available in white and chrome color.

Product	White	Chrome
Flow rate (liter/minute)	8	8
ERP (€)		



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