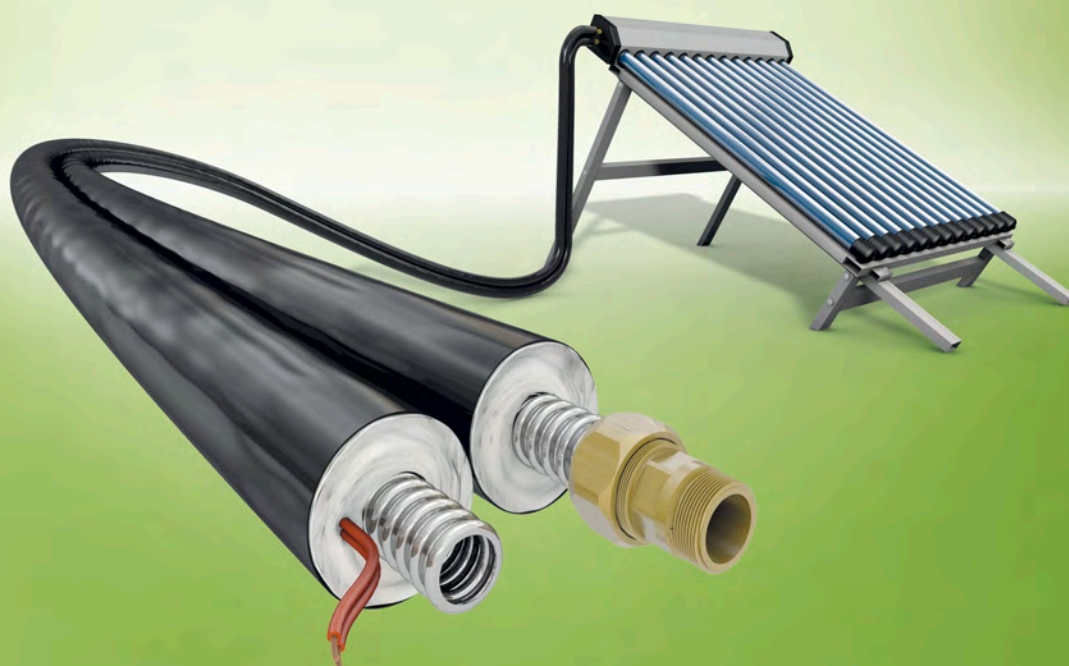




DUOSOLAR 220

ADVANCED PIPE SYSTEM FOR
EVACUATED TUBE COLLECTORS



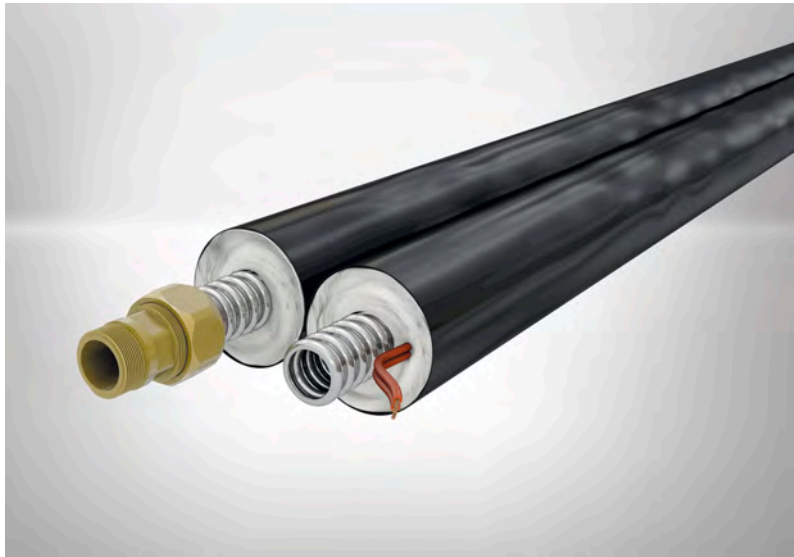
- For high-temperature applications up to +220 °C
- Integrated temperature sensor cable
- Provides good UV stability and mechanical protection
- Feed and return pipe can be separated easily
- Made in Germany

DuoSolar 220

The stagnation temperature of evacuated tube collectors is significantly higher than that of flat plate collectors. This often leads to breakdowns when standard +150 °C components are used.

Armacell now provides the new DuoSolar 220 which has been especially designed for evacuated tube collectors and offers a perfect solution at high temperatures.

- operating temperatures up to 220 °C
- for evacuated tube collectors



COMPONENTS

DuoSolar 220 consists of a flexible corrugated stainless steel pipe, which is quick and easy to install even with small bending radii and in retrofit applications. The high-tech polyester insulation withstands the extreme operating temperatures of evacuated tube collectors and the tough foil covering protects the pre-insulated pipe against mechanical damage and UV radiation. DuoSolar 220 has an integrated sensor cable with halogen-free, high-temperature-resistant silicon coating.



ACCESSORIES

The metal-to-metal sealing quick-fitting couplings from Armacell allow the flexible pipes to be connected to the system components in seconds.

- Ease of assembly: connections are made simply by tightening a nut
- The breakthrough family of quick-fitting couplings provides a permanent, leakproof seal for corrugated stainless steel pipes



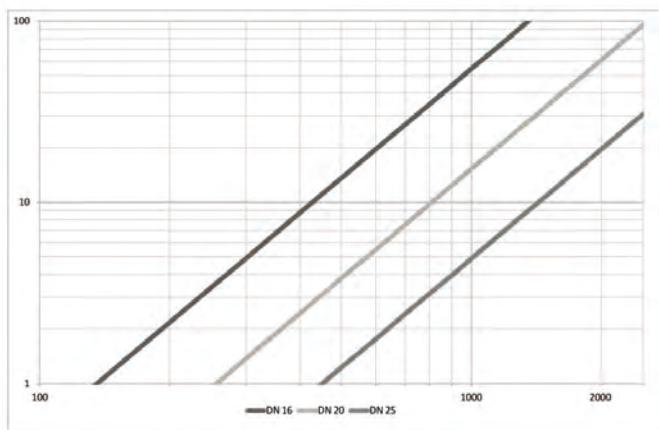
Technical Data - DuoSolar 220

Brief description	DuoSolar 220 is a system solution with pre-insulated feed and return pipe for solar hot-water applications. DuoSolar is used to connect evacuated tube collectors with the hot-water storage tank in an easy and professional way.
Material type	Insulation material: Polyester Corrugated stainless steel hose: austenitic stainless steel, according to EN 10088-2: X2CrNiMo 17-12-2 and DIN 17441: 1.4404. Fulfill EN ISO 10380:2013 and EN 13618 p.B7.2 Facing: polyolefin copolymer coating
Colour	black
Material Special Information	In the return pipe, a sensor cable (2 x 0,75 mm ²) with halogen-free, temperature-resistant silicon coating (+180 °C) is integrated.
Product Range	Pre-insulated corrugated stainless steel hoses, in different coil lengths.
Applications	Flexible tubing system to connect evacuated tube collectors with the hot water boiler and for other uses.

Property	Value/Assessment				Test* ¹	Special Remark
Temperature Range						
Temperature Range	max. service temperature + 220 °C					
	min. service temperature -50 °C					
Thermal Conductivity						
Thermal Conductivity	ϑ_m		40	[°C]	D5753	Tested according to EN ISO 8497
	λ ≤		0,040	W/(m · K)		
Fire performance						
Reaction to fire						
Other Fire Class	Hardly inflammable B1				D5753	Tested according to DIN 4102
Other technical features						
UV resistance	Very Good				TB 142	Tested according to EN ISO 4892-2 (Xenon-test)
Melting point	+256 °C					

*1 Further documents such as test certificates, approvals and the like can be requested using the registration number given.

Pressure drop diagram corrugated stainless steel pipes



Medium temperature 60 °C
Heat fluid 1,2 Propylenglykol
Dynamic Viscosity 1612,8 10⁻⁶ kg/ms

X-axis = volume flow in litre per hour
Y-axis = pressure drop in millibar per meter

DuoSolar 220 VA pipes pre-insulated endless



Covering Color black

Outer- Ø [mm]	Code	Insulation thickness [mm]	Outer-Ø pipe + insulation [mm]	Ring length [m]
21,4 VA	SO-DP-20X16/E15	20,0	2 x 62	15
21,4 VA	SO-DP-20X16/E25	20,0	2 x 62	25
26,7 VA	SO-DP-20X20/E15	20,0	2 x 67	15
26,7 VA	SO-DP-20X20/E25	20,0	2 x 67	25
31,8 VA	SO-DP-20X25/E15	20,0	2 x 72	15
31,8 VA	SO-DP-20X25/E25	20,0	2 x 72	25

DuoSolar 220 VA accessories



Code	Article description	Pieces/set
SCH-DN16-FEF20	Pipe hanger for DN16-FEF20 with hex-head screw M8x80 and raw plugs S10, insulation thickness 20mm	4
SCH-DN20-FEF20	Pipe hanger for DN20-FEF20 with hex-head screw M8x80 and raw plugs S11, insulation thickness 20mm	4

DuoSolar 220 fitting for corrugated hoses



Stainless steel VA	Code	Connection	Pieces/carton
DN 16	SO-SDN16-DN16	corrugated stainless steel hoses DN 16	10
DN 20	SO-SDN20-DN20	corrugated stainless steel hoses DN 20	10
DN 25	SO-SDN25-DN25 •	corrugated stainless steel hoses DN 25	4

• Item not in stock. Delivery on request. [MTO]

DuoSolar 220 fitting for copper pipes



Stainless steel VA	Code	Connection	Pieces/carton
DN 16	SO-SDN16-CU12 •	plain pipes Ø 12 mm	10
DN 16	SO-SDN16-CU15	plain pipes Ø 15 mm	10
DN 16	SO-SDN16-CU18	plain pipes Ø 18 mm	10
DN 16	SO-SDN16-CU22	plain pipes Ø 22 mm	10
DN 20	SO-SDN20-CU15 •	plain pipes Ø 15 mm	10
DN 20	SO-SDN20-CU18	plain pipes Ø 18 mm	10
DN 20	SO-SDN20-CU22	plain pipes Ø 22 mm	10
DN 25	SO-SDN25-CU18 •	plain pipes Ø 18 mm	4
DN 25	SO-SDN25-CU22 •	plain pipes Ø 22 mm	4

• Item not in stock. Delivery on request. [MTO]

DuoSolar 220 fitting with female straight internal thread



Stainless steel VA	Code	Connection	Pieces/carton
DN 16	SO-SDN16-I1 •	inside thread G1"	10
DN 16	SO-SDN16-I1/2	inside thread G½"	10
DN 16	SO-SDN16-I3/4	inside thread G¾"	10
DN 20	SO-SDN20-I1	inside thread G1"	10
DN 20	SO-SDN20-I3/4	inside thread G¾"	10
DN 25	SO-SDN25-I1	inside thread G1"	4
DN 25	SO-SDN25-I1¼ •	inside thread G1 ¼"	4

• Item not in stock. Delivery on request. [MTO]

DuoSolar 220 fitting with male straight thread



Stainless steel VA	Code	Connection	Pieces/carton
DN 16	SO-SDN16-F1 •	external thread G1"	10
DN 16	SO-SDN16-F3/4	external thread G3/4"	10
DN 20	SO-SDN20-F1	external thread 1"	10
DN 20	SO-SDN20-F3/4	external thread G3/4"	10

• Item not in stock. Delivery on request. [MTO]

DuoSolar 220 fitting with male tapered thread



Stainless steel VA	Code	Connection	Pieces/carton
DN 16	SO-SDN16-E1 •	external thread R1"	10
DN 16	SO-SDN16-E1/2	external thread R1/2"	10
DN 16	SO-SDN16-E3/4	external thread R3/4"	10
DN 20	SO-SDN20-E1	external thread R1"	10
DN 20	SO-SDN20-E3/4	external thread R3/4"	10
DN 25	SO-SDN25-E1	external thread R1"	4
DN 25	SO-SDN25-E11/4 •	external thread R1 1/4"	4

• Item not in stock. Delivery on request. [MTO]

DuoSolar 220 fitting with cylindrical connection



Stainless steel VA	Code	Connection	Pieces/carton
DN 16	SO-SDN16-Z18 •	cylindrical connection piece Ø 18 mm	10
DN 20	SO-SDN20-Z18 •	cylindrical connection piece Ø 18 mm	10

• Item not in stock. Delivery on request. [MTO]

DuoSolar 220 clamping ring



Stainless steel VA	Code	Connection	Pieces/carton
DN 16	SO-SDN16-CR	clamping ring	50
DN 20	SO-SDN20-CR •	clamping ring	50
DN 25	SO-SDN25-CR	clamping ring	50

• Item not in stock. Delivery on request. [MTO]

