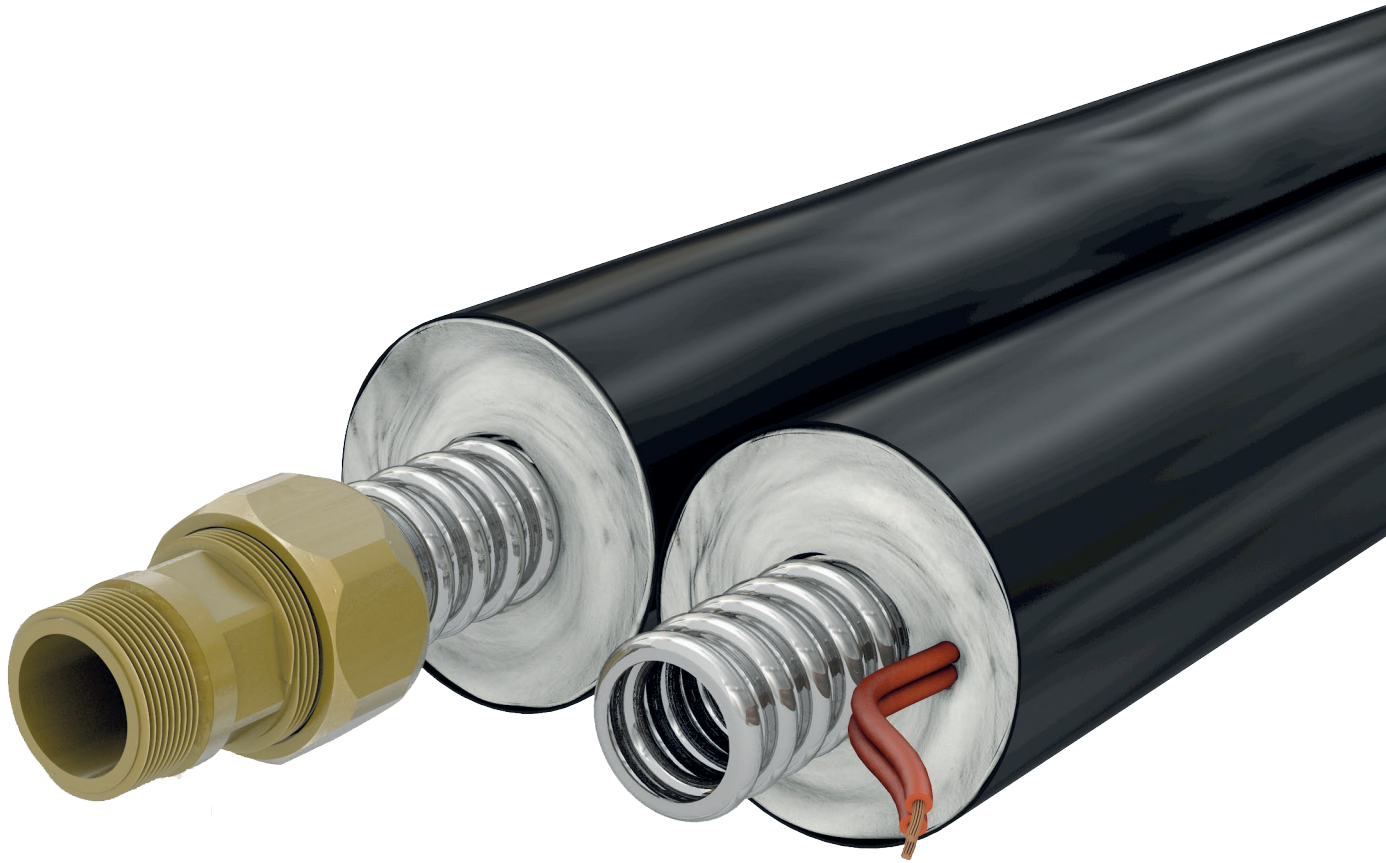


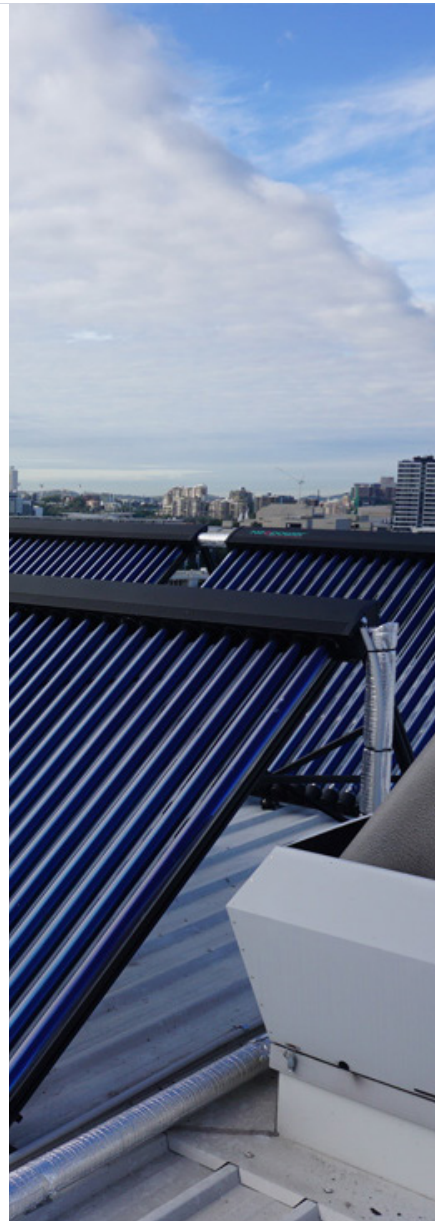
# DuoSolar 220



## THE ADVANCED PRE-INSULATED PIPE SYSTEM FOR HIGH-TEMPERATURE EVACUATED TUBE SOLAR COLLECTORS

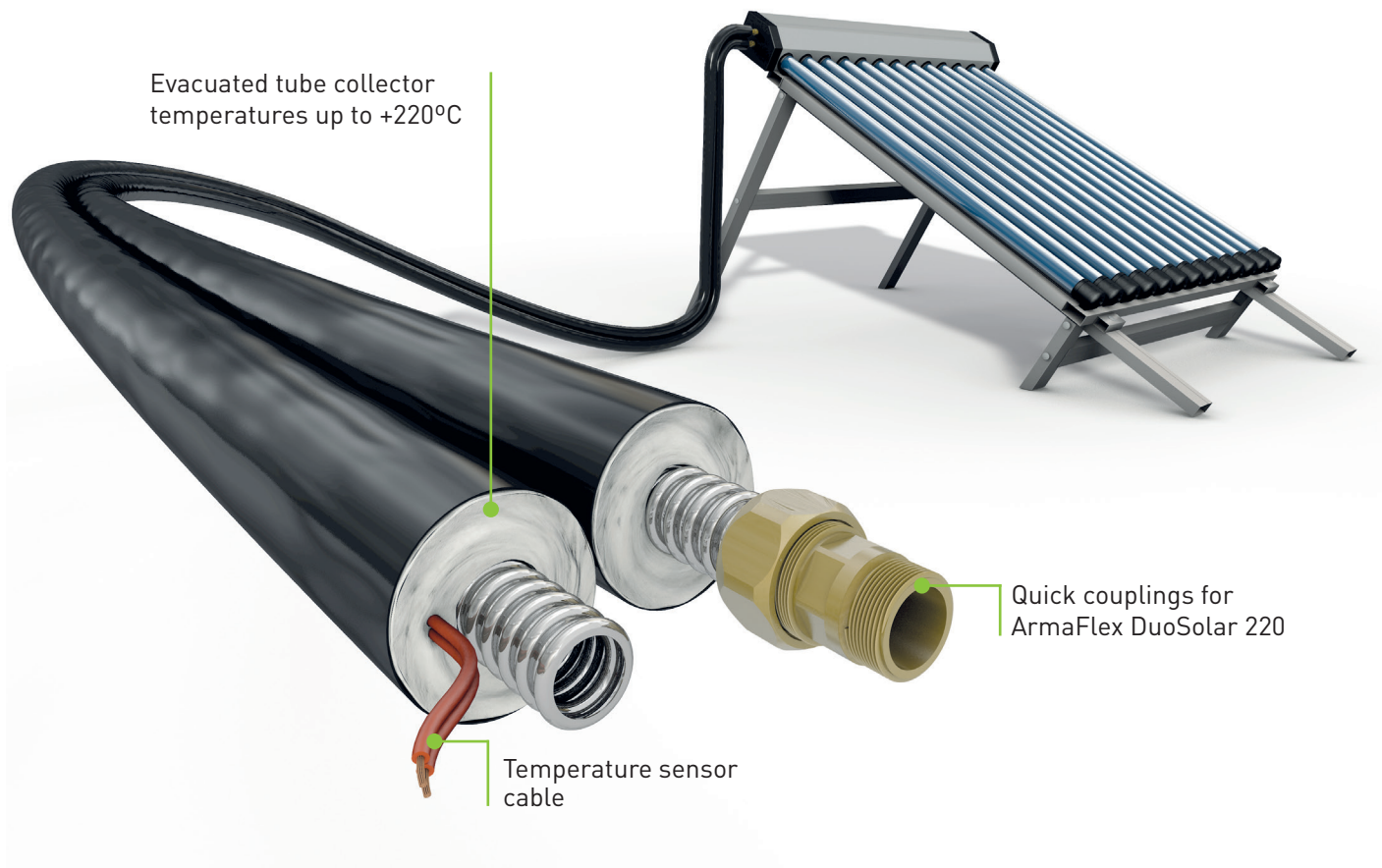
- Excellent performance in high-temperature applications
- Integrated temperature sensor cable
- Facing provides good UV stability
- Feed and return pipe can be separated easily
- Reduces energy losses and minimises CO2 emissions







## PROPERTIES



## BENEFITS

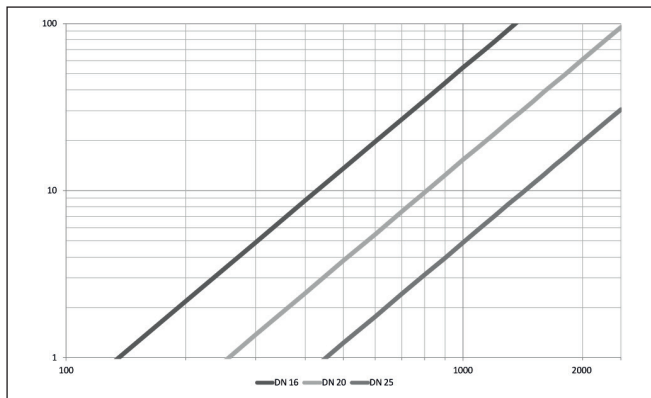
- Reduces energy losses and minimises CO<sup>2</sup> emissions
- Reduced installation time and costs
- Resistant to environmental impact
- Excellent performance in high temperature
- Integrated temperature sensor cable
- Good resistance to UV radiation
- Easy joining and separation of pipes during installation
- Wide range of additional accessories available

## INSTALLATION GUIDE

Steps for a correct installation of solar pipes with quick couplings.



## PRESSURE DROP DIAGRAM CORRUGATED STAINLESS STEEL PIPES



**Medium temperature:** 60°C  
**Heat fluid:** 1,2 Propylenglycol  
**Dynamic Viscosity:** 1612.8 10<sup>-6</sup> kg/ms

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

## RANGE

## PRE-INSULATED VA PIPES

Coils



## VA ACCESSORIES

Pipe hanger



## RAPID CONNECTIONS

Corrugated hoses, Copper pipes, female straight internal thread, Male straight thread, Male tapered thread, Cylindrical connection, Clamping ring



## RECOMMENDED PRODUCTS

For a complete installation



ArmaFlex HT625 adhesive



ArmaFlex Cleaner

## TECHNICAL DATA

ArmaFlex DuoSolar 220 is a system solution with pre-insulated feed and return pipes for high temperature solar hot-water applications. DuoSolar can be used to connect evacuated tube collectors with hot-water storage tanks in a easy and professional way.

<b>Material type</b>	<b>Insulation material:</b> Polyester. <b>Corrugated stainless steel hose:</b> Austenitic stainless steel, according to EN 10088-2: X2CrNiMo 17-12-2 and DIN 17441: 1.4404. Fulfills EN ISO 10380:2013 and EN 13618 p. B7.2 <b>Facing:</b> Polyolefin copolymer coating.
<b>Colour</b>	Black
<b>Material special information</b>	The return pipe includes a temperature sensor cable [2x0.75mm <sup>2</sup> ] with halogen-free, temperature resistant silicon coating (+180°C).
<b>Product range</b>	Pre-insulated corrugated stainless steel hoses, in different coil lengths.
<b>Applications</b>	Flexible tubing system to connect evacuated tube collectors with solar hot water boiler and for other high-temperature applications.

Property	Value/Assessment	Test *1	Standards & Remarks
Temperature Range			
Max service temperature	+220 °C		
Min service temperature	-50 °C		
Thermal Coductivity			
	$\lambda_{40^{\circ}\text{C}} \leq 0.040 \text{ W/(m}\cdot\text{K)}$ $[36.92+0.125 \cdot \vartheta_{\text{m}} + 0.0008 \cdot (\vartheta_{\text{m}} -30)^2]/1000$	D5753	Tested acc. to EN ISO 8497
Fire Performance			
	B1	EU 5670	Tested acc. to DIN 4102
Other technical features			
UV resistance	Resistant to UV radiation	TB 142	Tested acc. to EN ISO 4892-2 (Xenon-test)
Melting point	+256 °C		
*1 Further documents such as test certificates, approvals can be requested using the registration number.			

## DUOSOLAR 220 PRE-INSULATED VA PIPE (COILS)

Covering colour - Black



Outside - Ø (mm)	Code	Thickness (mm)	Outer pipe & insulation (mm)	Coil length (m)
21.4 VA	SO-DP-20X16/E10	20	2 X 62	10
21.4 VA	SO-DP-20X16/E15	20	2 X 62	15
21.4 VA	SO-DP-20X16/E20	20	2 X 62	20
21.4 VA	SO-DP-20X16/E25	20	2 X 62	25
26.7 VA	SO-DP-20X20/E15	20	2 X 67	15
26.7 VA	SO-DP-20X20/E20	20	2 X 67	20
26.7 VA	SO-DP-20X20/E25	20	2 X 67	25
31.8 VA	SO-DP-20X25/E15	20	2 X 72	15
31.8 VA	SO-DP-20X25/E25	20	2 X 72	25

## VA ACCESSORIES



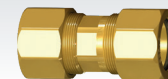
Code	Description	Pieces/set
SCH-DN16-FEF20 •	Pipe hanger for DN16FEF20 with hexhead screw M8X80 and raw plugs S10, insulation thickness 20mm	4
SCH-DN20-FEF20 •	Pipe hanger for DN20FEF20 with hexhead screw M8X80 and raw plugs S11, insulation thickness 20mm	4

### Other information

- Not a stock item

## FITTINGS FOR CORRUGATED HOSES

Quick fitting coupling for corrugated stainless steel hoses.



Stainless steel VA	Code	Connection	Pieces/carton
DN16	SO-SDN16-DN16 •	Corrugated stainless steel hoses DN16	10
DN20	SO-SDN20-DN20 •	Corrugated stainless steel hoses DN20	10
DN25	SO-SDN25-DN25 •	Corrugated stainless steel hoses DN25	4

## FITTINGS FOR COPPER PIPES

Quick fitting coupling with clamping ring for copper pipes.



Stainless steel VA	Code	Connection	Pieces/carton
DN16	SO-SDN16-CU15 •	Plain pipes Ø 15mm	10
DN16	SO-SDN16-CU18 •	Plain pipes Ø 18mm	10
DN16	SO-SDN16-CU22 •	Plain pipes Ø 22mm	10
DN20	SO-SDN20-CU15 •	Plain pipes Ø 15mm	10
DN20	SO-SDN20-CU18 •	Plain pipes Ø 18mm	10
DN20	SO-SDN20-CU22 •	Plain pipes Ø 22mm	10
DN25	SO-SDN25-CU18 •	Plain pipes Ø 18mm	4
DN25	SO-SDN25-CU22 •	Plain pipes Ø 22mm	4

## FITTINGS WITH FEMALE STRAIGHT INTERNAL THREAD

Quick fitting coupling with female straight internal thread for metal to metal or flat-sealing screw joints.



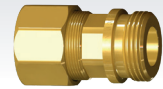
Stainless steel VA	Code	Connection	Pieces/carton
DN16	SO-SDN16-I1/2 •	Inside thread G 1/2"	10
DN16	SO-SDN16-I3/4 •	Inside thread G 3/4"	10
DN16	SO-SDN16-I1 •	Inside thread G 1"	10
DN20	SO-SDN20-I3/4	Inside thread G 3/4"	10
DN20	SO-SDN20-I1	Inside thread G 1"	10
DN25	SO-SDN25-I1	Inside thread G 1"	4
DN25	SO-SDN25-I1 1/4	Inside thread G 1 1/4"	4

### Other information

- Not a stock item

## FITTINGS WITH MALE STRAIGHT THREAD

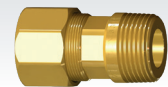
Quick fitting coupling with male straight thread for flat-sealing screw joints.



Stainless steel VA	Code	Connection	Pieces/carton
DN16	SO-SDN16-F3/4 •	External thread G $\frac{3}{4}$ "	10
DN16	SO-SDN16-F1 •	External thread G1"	10
DN20	SO-SDN20-F3/4 •	External thread G $\frac{3}{4}$ "	10
DN20	SO-SDN20-F1 •	External thread G1"	10

## FITTINGS WITH MALE TAPERED THREAD

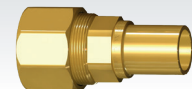
Quick fitting coupling with male tapered thread for metal to metal sealing screw joints.



Stainless steel VA	Code	Connection	Pieces/carton
DN16	SO-SDN16-E1/2 •	External thread R $\frac{1}{2}$	10
DN16	SO-SDN16-E3/4 •	External thread R $\frac{3}{4}$	10
DN16	SO-SDN16-E1 •	External thread R1	10
DN20	SO-SDN20-E3/4 •	External thread R $\frac{3}{4}$	10
DN20	SO-SDN20-E1 •	External thread R1	10
DN25	SO-SDN25-E1 •	External thread R1	4
DN25	SO-SDN25-E1 $\frac{1}{4}$ •	External thread R1 $\frac{1}{4}$	4

## FITTINGS WITH CYLINDRICAL CONNECTION

Quick fitting coupling with cylindrical connection piece.



Stainless steel VA	Code	Connection	Pieces/carton
DN16	SO-SDN16-Z18 •	Cylindrical connection piece Ø 18mm	10
DN20	SO-SDN20-Z18 •	Cylindrical connection piece Ø 18mm	10

## CLAMPING RING

Clamping ring for quick fitting coupling



Stainless steel VA	Code	Connection	Pieces/carton
DN16	SO-SDN16-CR •	Clamping ring	50
DN20	SO-SDN20-CR •	Clamping ring	50
DN25	SO-SDN25-CR •	Clamping ring	50