

ArmaFlex[®] DuoSolar

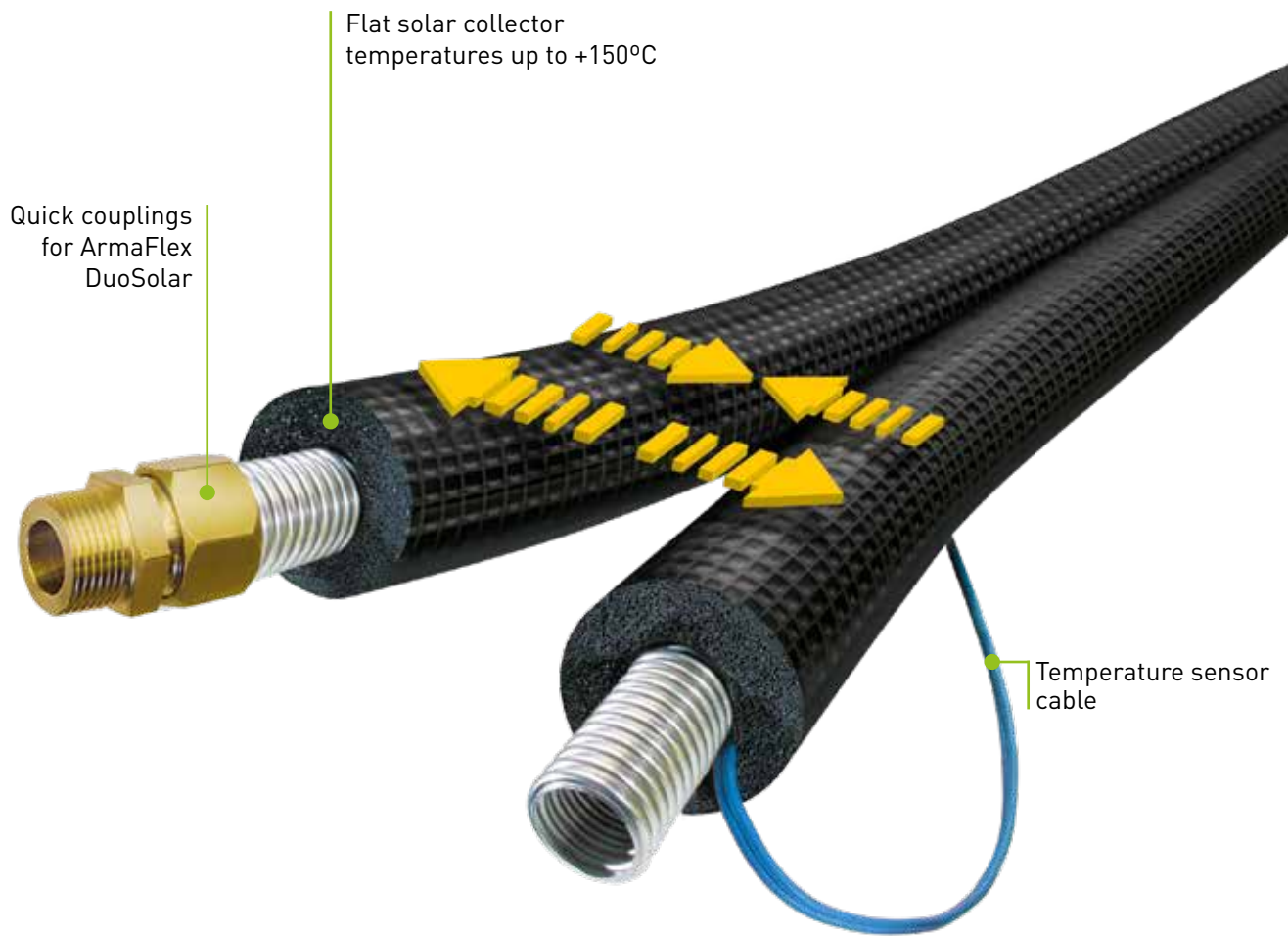


THE EASY-TO-INSTALL, PRE-INSULATED PIPING SYSTEM FOR EFFICIENCY IN SOLAR HOT WATER APPLICATIONS

- Reduce cost and assembly time of solar hot water connections
- Outer layer for resistance against environmental impact
- Reduces energy loss and minimises CO2 emissions
- Wide range of accessories available for a quick and complete insulation
- Patented join split adhesive technology
- Integrated temperature sensor cable
- Polyolefin-copolymer textured coating provides good resistance to UV radiation
- Excellent resistance to water vapour diffusion combined with low thermal conductivity
- Low maintenance and repair costs



PROPERTIES



BENEFITS

- Reduce energy loss and minimise CO² emissions.
- Reduce installation time and costs.
- Resistant to environmental impact.
- Excellent performance in high temperature applications.
- 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.



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 is a flexible pre-insulated, UV resistant insulation system used to connect solar collectors with hot-water storage tanks. The system offers a smart join-split system with twin stainless steel pipes and integrated temperature sensor cable.

Material type	Insulation material: Synthetic EPDM rubber based foam. Corrugated stainless steel hose: Austenitic stainless steel, according to EN 10088-2: X2CrNiMo 17-12-2 and DIN 17441: 1.4404. Covering: Polyolefin copolymer film.
Colour	Black
Material special information	The return pipe includes a temperature sensor cable (2x0.75mm ²) with halogen-free, temperature resistant silicone coating (+180°C).
Applications	Tubing system to connect solar collectors with solar thermal hot water cylinders.
Remarks	The solar system and heat transfer fluid has to be well matched in order to guarantee corrosion and interference-free operation. We recommend an annual laboratory test of the fluid medium (density, concentration, pH). The heat transfer fluid has to be completely replaced in case the parameters no longer meet the requirements EC Certificate of Conformity no. 0543 of Güteschutzgemeinschaft Hartschaum e.V., Celle

Property	Value/Assessment	Test	Standards & Remarks
Temperature Range			
Max service temperature	+150°C	EU 5670	Tested acc to EN 14706 & EN 14707
Min service temperature	-50°C		
Thermal Conductivity			
	$\lambda_{40^\circ\text{C}} \leq 0.042 \text{ W/(m}\cdot\text{K)}$ $[36.92 + 0.125 \cdot \vartheta_m + 0.0008 \cdot (\vartheta_m - 30)^2] / 1000$	EU 5670	Declared acc. to EN ISO 13787 Tested acc. to EN ISO 8497
Water Vapour Diffusion Resistance			
	$\mu \geq 4000$	EU 5670	Tested acc. to EN 13469
Fire Performance			
Reaction to fire	Euroclass E	EU 5670	Classified acc. to EN 13501-1 Tested acc. to EN ISO 11925-2
Other technical features			
Dimensions & tolerances	In accordance with EN 14304, table 1	EU 5670	Tested acc. to EN 13467
Chemical behaviour	Excellent resistance to ozone, chemicals (consult product test list) and building materials		
UV resistance	Good		
Health aspects	Dust and fibre free		
Max operating pressure (bar)	ODP zero GWP zero	EU 5197	
Pipe volume (l/m)	CU12 = 0.085 DN16 = 0.272 CU15 = 0.141 DN20 = 0.430 CU18 = 0.201 DN25 = 0.633		

ARMAFLEX DUOSOLAR PRE-INSULATED VA PIPE (COILS)

Covering colour - Black, Pre-insulated corrugated tubes made of stainless steel
1.4404 (ASTM 316 L)



Outside - Ø (mm)	Code	Thickness (mm)	Outer pipe & insulation (mm)	Coil length (m)	
21.4 VA	SO-DV-14X16/E10	14	2 X 50	10	
21.4 VA	SO-DV-14X16/E15	14	2 X 50	15	
21.4 VA	SO-DV-14X16/E20	14	2 X 50	20	
21.4 VA	SO-DV-14X16/E25	14	2 X 50	25	
26.7 VA	SO-DV-14X20/E10 •	14	2 X 55	10	
26.7 VA	SO-DV-14X20/E15 •	14	2 X 55	15	
26.7 VA	SO-DV-14X20/E20 •	14	2 X 55	20	
26.7VA	SO-DV-14X20/E25 •	14	2 X 55	25	
31.8 VA	SO-DV-14X25/E15 •	14	2 X 60	15	
31.8 VA	SO-DV-14X25/E25 •	14	2 X 60	25	
21.4 VA	SO-DV-20X16/E15 •	20	2 X 61	15	
21.4 VA	SO-DV-20X16/E25 •	20	2 X 61	25	
26.7 VA	SO-DV-20X20/E15 •	20	2 X 67	15	
26.7 VA	SO-DV-20X20/E25 •	20	2 X 67	25	

VA ACCESSORIES



Code	Description	Pieces/set	
SCH-DN16-FEF14 •	Pipe hanger for DN16FEF14 with hexhead screw M8X80 and raw plugs S10, insulation thickness 14mm	4	
SCH-DN16-FEF20 •	Pipe hanger for DN16FEF20 with hexhead screw M8X80 and raw plugs S10, insulation thickness 20mm	4	
SCH-DN20-FEF14 •	Pipe hanger for DN20FEF14 with hexhead screw M8X80 and raw plugs S11, insulation thickness 14mm	4	
SCH-DN20-FEF20 •	Pipe hanger for DN20FEF20 with hexhead screw M8X80 and raw plugs S11, insulation thickness 20mm	4	
SCH-DN25-FEF14 •	Pipe hanger for DN25FEF14 with hexhead screw M8X80 and raw plugs S12, insulation thickness 14mm	4	
SO-VA-DNI-16 •	Double nipple ¾" for DN16	2	
SO-VA-DNI-20 •	Double nipple 1" for DN20	2	
SO-VA-DNI-25 •	Double nipple 1 ¼" for DN25	2	
SO-VA-FIT-16/4 •	Fitting set for DN16 with 4 of each split rings, union nuts & washers	4	
SO-VA-FIT-20/4 •	Fitting set for DN20 with 4 of each split rings, union nuts & washers	4	
SO-VA-FIT-25/4 •	Fitting set for DN25 with 4 of each split rings, union nuts & washers	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	S0-SDN16-DN16 •	Corrugated stainless steel hoses DN16	10	
DN20	S0-SDN20-DN20 •	Corrugated stainless steel hoses DN20	10	
DN25	S0-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	S0-SDN16-CU15 •	Plain pipes Ø 15mm	10	
DN16	S0-SDN16-CU18 •	Plain pipes Ø 18mm	10	
DN16	S0-SDN16-CU22 •	Plain pipes Ø 22mm	10	
DN20	S0-SDN20-CU15 •	Plain pipes Ø 15mm	10	
DN20	S0-SDN20-CU18 •	Plain pipes Ø 18mm	10	
DN20	S0-SDN20-CU22 •	Plain pipes Ø 22mm	10	
DN25	S0-SDN25-CU18 •	Plain pipes Ø 18mm	4	
DN25	S0-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	S0-SDN16-I1/2 •	Inside thread G 1/2"	10	
DN16	S0-SDN16-I3/4 •	Inside thread G 3/4"	10	
DN16	S0-SDN16-I1 •	Inside thread G 1"	10	
DN20	S0-SDN20-I3/4	Inside thread G 3/4"	10	
DN20	S0-SDN20-I1	Inside thread G 1"	10	
DN25	S0-SDN25-I1	Inside thread G 1"	4	
DN25	S0-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	S0-SDN16-F3/4 •	External thread G3/4"	10	
DN16	S0-SDN16-F1 •	External thread G1"	10	
DN20	S0-SDN20-F3/4 •	External thread G3/4"	10	
DN20	S0-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	S0-SDN16-E1/2 •	External thread R1/2	10	
DN16	S0-SDN16-E3/4 •	External thread R3/4	10	
DN16	S0-SDN16-E1 •	External thread R1	10	
DN20	S0-SDN20-E3/4 •	External thread R3/4	10	
DN20	S0-SDN20-E1 •	External thread R1	10	
DN25	S0-SDN25-E1 •	External thread R1	4	
DN25	S0-SDN25-E11/4 •	External thread R1/4	4	

FITTINGS WITH CYLINDRICAL CONNECTION

Quick fitting coupling with cylindrical connection piece.



Stainless steel VA	Code	Connection	Pieces/carton	
DN16	S0-SDN16-Z18 •	Cylindrical connection piece Ø 18mm	10	
DN20	S0-SDN20-Z18 •	Cylindrical connection piece Ø 18mm	10	

CLAMPING RING

Clamping ring for quick fitting coupling



Stainless steel VA	Code	Connection	Pieces/carton	
DN16	S0-SDN16-CR •	Clamping ring	50	
DN20	S0-SDN20-CR •	Clamping ring	50	
DN25	S0-SDN25-CR •	Clamping ring	50	

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