Armaflex® DuoSolar

EFFICIENCY IN SOLAR APPLICATIONS

- Join split technology reduces cost and saves time of assembly
- Coating provides good resistance to UV radiation and mechanical impact
- Integrated temperature sensor cable
- Wide range of additional accessories available

Technical Data - Armaflex DuoSolar

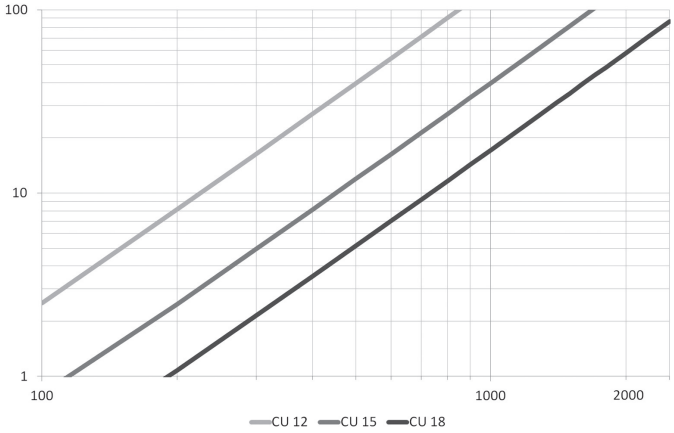
Brief description	Armaflex DuoSolar is a flexible pre-insulated, UV resistant piping system used to connect solar collectors with the hot-water storage tank in an easy and professional way. The system is offered with a smart join-split system with two copper or stainless steel hoses and includes a sensor cable.
Material type	Insulation material: Synthetic EPDM rubber based foam. Factory made flexible elastomeric foam (FEF) according to EN 14304. Copper pipes seamless drawn soft annealed copper tubes, according to EN 1057. Corrogated stainless steel hose: austenitic stainless steel, according to EN 10088-2: X 2 CrNiMo 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 mm²) with halogen-free, temperature-resistant silicon coating (+180 °C) is integrated.
Product Range	Pre-insulated copper pipes or corrugated stainless steel hoses, in different coil lengths.
Applications	Piping system to connect the solar collector with the hot water boiler and for other uses.
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, corrosion, pH). The heat transfer fluid has to be completely replaced in case the parameters no longer meet the requirements. Declaration of Performance is available in accordance with Article 7(3) of Regulation (EU) No 305/2011 on our homepage: www.armacell.com/DoP" EC Certificate of Conformity no. 0543 of Güteschutzgemeinschaft Hartschaum e.V. , Celle

Property	Value/Assessment			Test*1	Special Remark
Temperature Range					
Temperature Range	max. service temperature min. service temperature	+ 150 °C -50 °C		EU 5316	Tested acc. to EN 14707 EN 14304
Thermal Conductivity					
Thermal Conductivity	ϑ_m 40	°C	λ=	EU 5316	Declared acc. to EN ISO 13787 Tested according to EN ISO 8497
	λ ≤ 0,042	W/(m · K)	$[36,92 + 0,125 \cdot \vartheta_m + 0,0008 \cdot (\vartheta_m-30)^2]/1000$		
Water vapour diffusion resistance					
Water vapour diffusion resistance	μ	≥	4.000	EU 5316	Tested according to EN 13469
Fire performance					
Reaction to fire	Euroclass	E		EU 5316	Classified acc. to EN 13501-1 Tested according to EN ISO 11925-2
Other technical features					
Dimensions and tolerances	In accordance with EN 14304, table 1			EU 5316	Tested acc. to EN 13467
UV resistance	Very Good			TB 142	Tested according to EN ISO 4892-2 (Xenon-test)
Max. operating pressure (bar)	CU12 = 79 CU15 = 62 CU18 = 65	DN16 = 16 DN20 = 10 DN25 = 10			
Pipe volume (l/m)	CU12 = 0,085 CU15 = 0,141 CU18 = 0,201	DN16 = 0,272 DN20 = 0,430 DN25 = 0,633			
Maintenance	Long-term corrosion and failure-proof operation of the solar thermal equipment is only possible when the system and heat transfer medium are optimally matched to each another. We recommend an annual laboratory test of the medium (eg density, concentration, corrosion protection, pH). The heat transfer medium must be replaced completely if the parameters do no longer meet the specifications.				

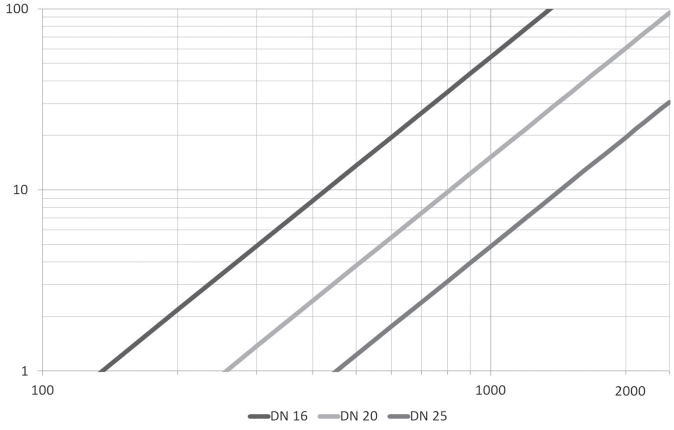
*1 Further documents such as test certificates, approvals and the like can be requested using the registration number given.

Technical Data - Armaflex DuoSolar

Presssure drop diagram copper pipes



Presssure drop diagram corrugated stainless steel pipes



Medium temperature 60 °C
Heat fluid 1,2 Propylenglykol
Dynamic Viscosity 1612,8 10-6 kg/ms
Weight density 1008 kg/m³

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

All data and technical information are based on results achieved under typical application conditions. Recipients of this information should, in their own interest and responsibility, clarify with us in due time whether or not the data and information apply to the intended application area. Installation instructions are available in our Armaflex installation manual. Armaflex HT625 adhesive must be used to guarantee proper installation. For temperatures below -50 °C or above +150 °C, please consult our Customer Service Center for further information.

notes

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