

K-FLEX SOLAR SYSTEM



COMPLETE RANGE OF INSULATION PRODUCTS DESIGNED FOR SOLAR HEATING SYSTEMS

FAST & EASY INSTALLATION

UV RESISTANT

SPECIFICALLY DESIGNED FOR SOLAR THERMAL PANELS



L'ISOLANTE K-FLEX

PROVIDES A COMPLETE RANGE OF PRODUCTS TO SATISFY ALL INSULATION REQUIREMENTS FOR SOLAR SYSTEMS

K-FLEX TWIN SOLAR SYSTEM

K-FLEX TWIN SOLAR CU SYSTEM

K-FLEX SOLAR R



L'ISOLANTE K-FLEX

www.kflex.com

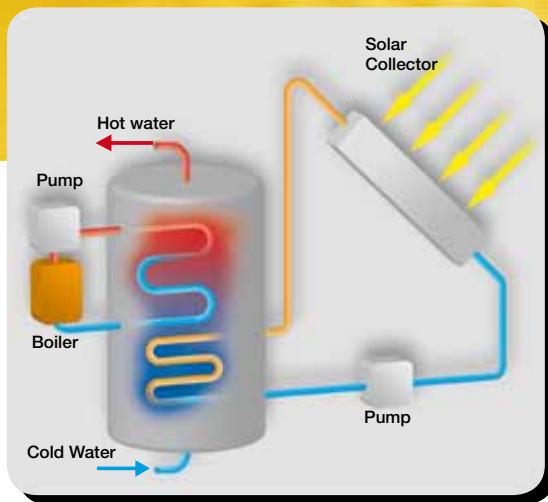
K-FLEX TWIN SOLAR
SYSTEM



> The **ideal solution** for solar heating systems complete with thermal insulation resistant to high temperatures.

> **Fast & easy connection** of the hot water accumulation tank to the solar panel.

> **Specifically designed** to minimize heat loss, assure resistance to chemicals and atmospheric agents.



MAIN FEATURES

- Specifically studied for solar thermal panels.
- UV resistant.
- Saving on installation time.
- Meets all safety requirements.

K-FLEX TWIN SOLAR SYSTEM. THE COMPLETE SYSTEM WITH:

- Stainless Steel AISI 316L tubes.
- K-FLEX SOLAR insulation.
- High mechanical resistant protective film.
- Complete range of fittings.

K-FLEX TWIN SOLAR SYSTEM WITH FLEXIBLE STEEL TUBES

Product Range	Steel Tubes		Insulation	Tube length			
	Description	O.D. (mm)	Wall thickness (mm)	Thickness (mm)	10 m	15 m	20 m
K-FLEX TWIN SOLAR SYSTEM DN 16	21,4	0,18	14	●	●	●	●
K-FLEX TWIN SOLAR SYSTEM DN 16	21,4	0,18	20	●	●	●	●
K-FLEX TWIN SOLAR SYSTEM DN 20	26,7	0,18	14	●	●	●	●
K-FLEX TWIN SOLAR SYSTEM DN 20	26,7	0,18	20	●	●	●	●
K-FLEX TWIN SOLAR SYSTEM DN 25	31,7	0,20	14		●	●	●
K-FLEX TWIN SOLAR SYSTEM DN 25	31,7	0,20	20		●	●	●

Package Content: 1 roll of K-FLEX TWIN SOLAR with Installation Guide and **Accessory Kit** (4 split rings, 4 gasketes, 4 union nuts, 4 couplings).

Installation KIT	Product Code	Barcode
TWIN SOLAR SYSTEM kit - DN 16 with 4 O-rings, 4 nuts and 4 split rings.	850VR020316	8027409519713
TWIN SOLAR SYSTEM kit - DN 20 with 4 O-rings, 4 nuts and 4 split rings.	850VR020317	8027409519720
TWIN SOLAR SYSTEM kit - DN 25 with 4 O-rings, 4 nuts and 4 split rings.	850VR020318	8027409519737
Double Nipple 3/4" TWIN SOLAR SYSTEM (tube Ø ext. DN 16) -1 set, 2 pieces -	850VR020346	8027409564584
Double Nipple 1" TWIN SOLAR SYSTEM (tube Ø ext. DN 20) -1 set, 2 pieces -	850VR020347	8027409564591
Double Nipple 1-1/4" TWIN SOLAR SYSTEM (tube Ø ext. DN 25) -1 set, 2 pieces -	850VR020348	8027409564607
Flange Tool for DN16 and DN20	850VR020302	8027409519119
Tube Clamp for DN 16 and DN 20	850VR020319	8027409564577
Flange tool with Clamp for DN 25	850VR020322	8027409564201
DN16 "Split Ring" TWIN SOLAR SYSTEM pack 200 pieces	850VR020340	8027409559603
DN20 "Split Ring" TWIN SOLAR SYSTEM pack 200 pieces	850VR020341	8027409559610
DN25 "Split Ring" TWIN SOLAR SYSTEM pack 50 pieces	850VR020342	8027409563877
DN16 Gasket for TWIN SOLAR SYSTEM pack 200 pieces	850VR020343	8027409563884
DN20 Gasket for TWIN SOLAR SYSTEM pack 200 pieces	850VR020344	8027409563891
DN25 Gasket for TWIN SOLAR SYSTEM pack 50 pieces	850VR020345	8027409563907



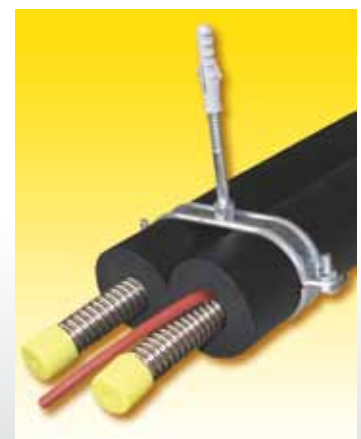
Assembling tools

- 1- couplings ●
- 2- nuts ●
- 3- split rings ●
- 4- O-rings (gaskets) ●
- 5- flange tool ●
- 6- tube clamp ●
- 7- K-FLEX K 425 glue ●

Oval Pipe Support	Product Code	Barcode
Oval Pipe Support 115 X 58 DN16 th. 20 mm	850VR020351	8027409568322
Oval Pipe Support 115 X 58 DN20 th. 14 mm	850VR020351	8027409568322
Oval Pipe Support 96 X 48 DN16 th. 14 mm	850VR020352	8027409569640
Oval Pipe Support 125 X 63 DN25 th. 14 mm	850VR020353	8027409569657
Oval Pipe Support 133 X 67 DN20 th. 20 mm	850VR020354	8027409569664
Oval Pipe Support 149 X 75 DN25 th. 20 mm	850VR020355	8027409569671

PACKAGE CONTENTS:

- Nr. 1 SEMICOLLAR with NUT (OVAL zinc);
- Nr. 1 SEMICOLLAR without NUT (OVAL zinc);
- Nr. 1 nylon screw anchor S 10 C;
- Nr. 1 double thread screw M8x90, galvanized white;
- Nr. 2 screws tcc comby M 6x20, galvanized white;
- Nr. 2 hexagonal medium nuts M6, galvanized white.



NEW QUICK & EASY COUPLING system



- > **Quick** assembly without use of any special tool.
- > Professional **long-lasting solution** for solar hotwater application.
- > Ensures safety & high performance, **eliminates assembling errors.**
- > A **complete range** of couplings especially designed for the **K-FLEX TWIN SOLAR SYSTEM.**



DN16



DN20



DN25

K-FLEX TWIN SOLAR SYSTEM

QUICK COUPLING SYSTEM ASSEMBLING

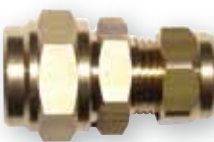


EXTERNAL
THREAD
COUPLING

Quick Coupling System	Product Code	Barcode	Box Content
External Thread 1/2" DN16	850VR020324	8027409559405	5 set - 2 pieces (each)
External Thread 3/4" DN16	850VR020326	8027409559436	5 set - 2 pieces (each)
External Thread 3/4" DN20	850VR020331	8027409559511	5 set - 2 pieces (each)
External Thread 1" DN20	850VR020333	8027409559535	5 set - 2 pieces (each)
External Thread 1 1/4" DN25	850VR020338	80274095594580	5 set - 2 pieces (each)
Internal Thread 1/2" DN16	850VR020325	8027409559429	5 set - 2 pieces (each)
Internal Thread 3/4" DN16	850VR020327	8027409559443	5 set - 2 pieces (each)
Internal Thread 3/4" DN20	850VR020332	8027409559528	5 set - 2 pieces (each)
Internal Thread 1" DN20	850VR020334	8027409559542	5 set - 2 pieces (each)



INTERNAL
THREAD
COUPLING



COUPLING WITH
CU CLAMPING RING

Quick Coupling System	Product Code	Barcode	Box Content
Connection system Steel DN16 Copper 15 mm	850VR020328	8027409559450	5 set - 2 pieces (each)
Connection system Steel DN16 Copper 18 mm	850VR020329	8027409559634	5 set - 2 pieces (each)
Connection system Steel DN16 Copper 22 mm	850VR020359	8027409575818	5 set - 2 pieces (each)
Connection system Steel DN20 Copper 18 mm	850VR020335	8027409559559	5 set - 2 pieces (each)
Connection system Steel DN20 Copper 22 mm	850VR020336	8027409559566	5 set - 2 pieces (each)
Connection system Steel DN25 Copper 22 mm	850VR020350	8027409573661	5 set - 2 pieces (each)



DOUBLE
COUPLING

Double Coupling system DN 16 - DN 16	850VR020330	8027409559467	5 set - 2 pieces (each)
Double Coupling system DN 20 - DN 20	850VR020337	8027409559573	5 set - 2 pieces (each)
Double Coupling system DN 25 - DN 25	850VR020339	8027409559597	5 set - 2 pieces (each)



	Product Code	Barcode
Split ring (2 half-parts) for DN 16 - 40 pieces	850VR020356	8027409576617
Split ring (2 half-parts) for DN 20 - 40 pieces	850VR020357	8027409576624
Split ring (2 half-parts) for DN 25 - 20 pieces	850VR020358	8027409576631

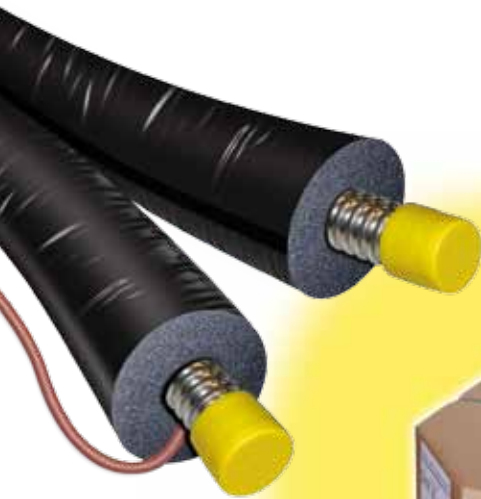
Insulation Thickness 14 mm

Stainless steel pipe			Insulation thickness: 14 mm			
O.D. (mm)	DN	Steel thickness (mm)	Product Code	Barcode	Tube Length	Cartons / Pallet
21,4	16	0,18	86TWS1402201	8027409518884	10 m	14
21,4	16	0,18	86TWS1402202	8027409518891	15 m	14
21,4	16	0,18	86TWS1402203	8027409518907	20 m	14
21,4	16	0,18	86TWS1402204	8027409518914	25 m	10
26,7	20	0,18	86TWS1402801	8027409518969	10 m	14
26,7	20	0,18	86TWS1402802	8027409518976	15 m	14
26,7	20	0,18	86TWS1402803	8027409518983	20 m	14
26,7	20	0,18	86TWS1402804	8027409518990	25 m	10
31,7	25	0,20	86TWS1403501	8027409519041	15 m	10
31,7	25	0,20	86TWS1403502	8027409519058	20 m	8
31,7	25	0,20	86TWS1403503	8027409519065	25 m	6

Insulation Thickness 20 mm

Stainless steel pipe			Insulation thickness: 20 mm			
O.D. (mm)	DN	Steel thickness (mm)	Product Code	Barcode	Tube Length	Cartons / Pallet
21,4	16	0,18	86TWS2002201	8027409518921	10 m	14
21,4	16	0,18	86TWS2002202	8027409518938	15 m	14
21,4	16	0,18	86TWS2002203	8027409518945	20 m	10
21,4	16	0,18	86TWS2002204	8027409518952	25 m	8
26,7	20	0,18	86TWS2002801	8027409519003	10 m	14
26,7	20	0,18	86TWS2002802	8027409519010	15 m	10
26,7	20	0,18	86TWS2002803	8027409519027	20 m	8
26,7	20	0,18	86TWS2002804	8027409519034	25 m	6
31,7	25	0,20	86TWS2003501	8027409519072	15 m	8
31,7	25	0,20	86TWS2003502	8027409519089	20 m	5
31,7	25	0,20	86TWS2003503	8027409519096	25 m	10

Package Content: 1 roll of K-FLEX TWIN SOLAR with Installation Guide and Accessory Kit (4 split rings, 4 gaskets, 4 union nuts, 4 couplings).



BOX



PALLET

K-FLEX TWIN SOLAR CU SYSTEM



- > Pre-insulated Copper pipe EN 1057 with **K-FLEX SOLAR** system;
- > **UV RESISTANT** external protection film;
- > **Easy to install;**
- > Provided with temperature sensor cable.

Product Range	Copper Pipe		Insulation	Tube length				
	Description	O.D. (mm)		Wall Thickness (mm)	Thickness (mm)	10 m	15 m	20 m
K-FLEX TWIN SOLAR SYSTEM CU 12		12	0,8	14		●		●
K-FLEX TWIN SOLAR SYSTEM CU 15		15	0,8	14	●	●	●	●
K-FLEX TWIN SOLAR SYSTEM CU 18		18	1	14	●	●	●	●
K-FLEX TWIN SOLAR SYSTEM CU 15		15	0,8	20		●		●
K-FLEX TWIN SOLAR SYSTEM CU 18		18	1	20		●		●



		Copper O.D. (mm)	Box quantity	Product Code	Box Size (mm)	Box Weight (Kg)	Box Volume (m ³)
Insulation thickness	14 mm	12	15 m	86TW1S1401201	1194 x 1208 x 104	15,05	0,15
		12	25 m	86TW1S1401202	1194 x 1208 x 104	20,11	0,14
		15	10 m	86TW1S1401501	1194 x 1208 x 104	10,75	0,15
		15	15 m	86TW1S1401502	1194 x 1208 x 104	14,91	0,15
		15	20 m	86TW1S1401503	1194 x 1208 x 104	19,08	0,15
		15	25 m	86TW1S1401504	1294 x 1308 x 104	24,04	0,17
		18	10 m	86TW1S1401801	1194 x 1208 x 104	13,70	0,15
	20 mm	18	15 m	86TW1S1401802	1194 x 1208 x 104	19,34	0,15
		18	20 m	86TW1S1401803	1194 x 1208 x 104	25,78	0,17
		18	25 m	86TW1S1401804	1294 x 1308 x 104	31,42	0,17
		15	15 m	86TW1S2001501	1194 x 1194 x 138	13,81	0,16
		15	25 m	86TW1S2001502	1194 x 1194 x 138	21,26	0,16
		18	15 m	86TW1S2001801	1194 x 1194 x 138	16,69	0,16
		18	25 m	86TW1S2001802	1194 x 1194 x 138	26,14	0,16



K-FLEX SOLAR R



> The convenient **solution** for solar panels and industrial processes up to 150 °C.

> **Recommended** for solar panels and low pressure steam or industrial processes up to 150°C.

> **K-FLEX SOLAR R** is available in Rolls, Standard Cartons, and half Cartons.

Product Range	Insulation Thickness	Tube Diameter						length (m)
		12 mm	15 mm	18 mm	22 mm	28 mm	35 mm	
Description								
K-FLEX SOLAR R - Rolls -	14				●	●	●	15
K-FLEX SOLAR R - Rolls -	20		●	●	●	●	●	15
K-FLEX SOLAR R - Standard Carton -	14				●	●	●	2
K-FLEX SOLAR R - Standard Carton -	20	●	●	●	●	●	●	2
K-FLEX SOLAR R - Half Carton -	14				●	●	●	2
K-FLEX SOLAR R - Half Carton -	20	●	●	●	●	●	●	2



K-FLEX SOLAR R - Rolls -

Thickness	Diameter	Product Code	Rolls lenght	Box Dimension (mm)	Box Volume (m ³)	Boxes per Pallet
14	18	14018214724KR	30 m	600 x 600 x 405	0,15	40
14	22	14022214724KR	25 m	600 x 600 x 405	0,15	40
14	28	14028214724KR	20 m	600 x 600 x 405	0,15	40
14	35	14035214724KR	15 m	600 x 600 x 405	0,15	40

Thickness	Diameter	Product Code	Rolls lenght	Box Dimension (mm)	Box Volume (m ³)	Boxes per Pallet
20	12	20012214724KR	20 m	600 x 600 x 405	0,15	40
20	15	20015214724KR	19 m	600 x 600 x 405	0,15	40
20	18	20018214724KR	17 m	600 x 600 x 405	0,15	40
20	22	20022214724KR	15 m	600 x 600 x 405	0,15	40
20	28	20028214724KR	15 m	600 x 600 x 405	0,15	40
20	35	20035214724KR	13 m	600 x 600 x 405	0,15	40

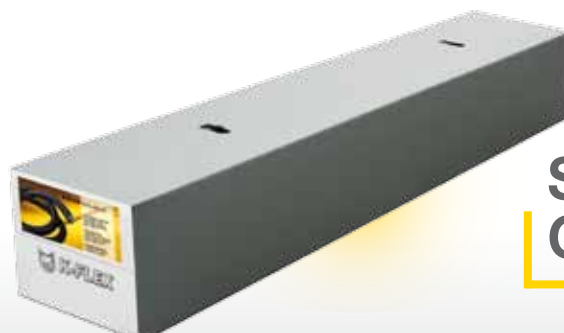


ROLLS

K-FLEX SOLAR R - Standard Carton-

Thickness	Diameter	Product Code	Tube lenght	Meters per Carton	Carton Dimension (mm)	Volume in m ³	Carton per Pallet
14	18	14018216524KR	2 m	118	390 x 320 x 2100	0,27	21
14	22	14022216524KR	2 m	98	390 x 320 x 2100	0,27	21
14	28	14028216524KR	2 m	50	390 x 320 x 2100	0,27	21
14	35	14035216524KR	2 m	•	390 x 320 x 2100	0,27	21

Thickness	Diameter	Product Code	Tube lenght	Meters per Carton	Carton Dimension (mm)	Volume in m ³	Carton per Pallet
20	12	20012216524KR	2 m	88	390 x 320 x 2100	0,27	21
20	15	20015216524KR	2 m	78	390 x 320 x 2100	0,27	21
20	18	20018216524KR	2 m	72	390 x 320 x 2100	0,27	21
20	22	20022216524KR	2 m	64	390 x 320 x 2100	0,27	21
20	28	20028216524KR	2 m	40	390 x 320 x 2100	0,27	21
20	35	20035216524KR	2 m	36	390 x 320 x 2100	0,27	21



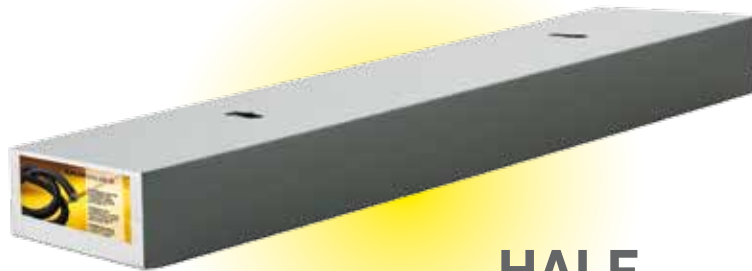
STANDARD CARTON

K-FLEX SOLAR R

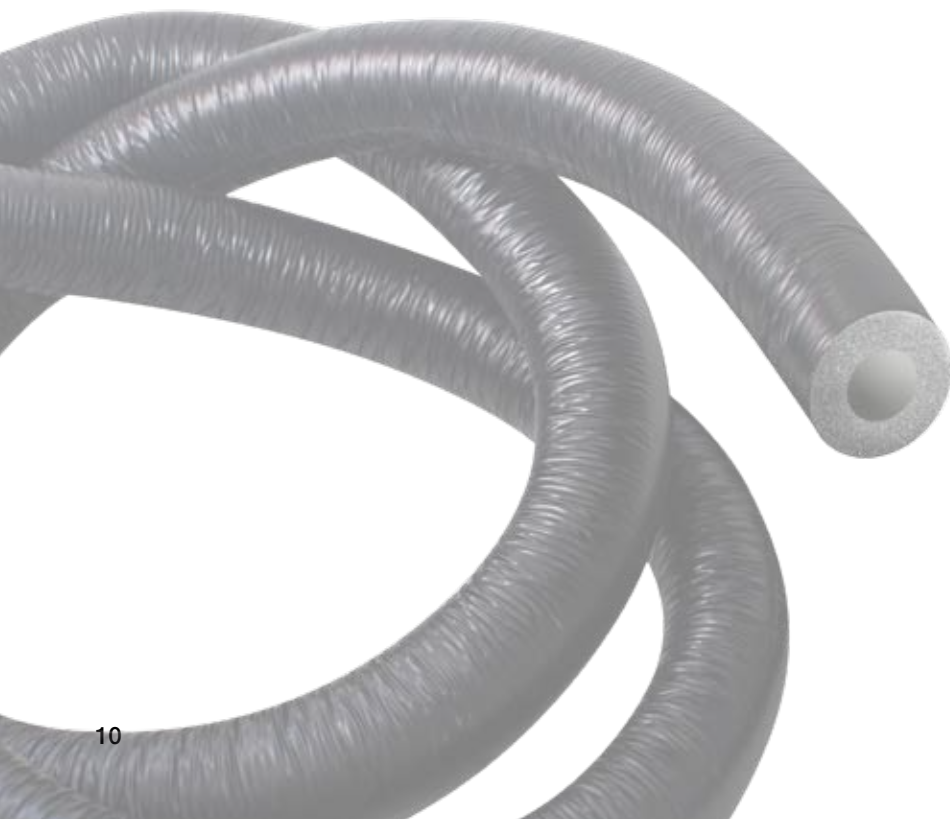
K-FLEX SOLAR R - Half Carton -

Insulation		Insulation Tube length 2 m					
Thickness	Diameter	Product Code	Tube length	Meters per Half Carton	Dimension (mm)	Volume in m ³	Carton per Pallet
14	22	14022211724KR	2 m	36	390 x 155 x 2100	0,13	42
14	28	14028211724KR	2 m	•	390 x 155 x 2100	0,13	42
14	35	14035211724KR	2 m	28	390 x 155 x 2100	0,13	42

Insulation		Insulation Tube length 2 m					
Thickness	Diameter	Product Code	Tube length	Meters per Half Carton	Dimension (mm)	Volume in m ³	Carton per Pallet
20	12	20012211724KR	2 m	44	390 x 155 x 2100	0,13	42
20	15	20015211724KR	2 m	38	390 x 155 x 2100	0,13	42
20	18	20018211724KR	2 m	36	390 x 155 x 2100	0,13	42
20	22	20022211724KR	2 m	32	390 x 155 x 2100	0,13	42
20	28	20028211724KR	2 m	24	390 x 155 x 2100	0,13	42
20	35	20035211724KR	2 m	18	390 x 155 x 2100	0,13	42



**HALF
CARTON**



TECHNICAL SPECIFICATIONS

Technical data of the **K-FLEX SOLAR** thermal insulation with special protective film that ensures excellent resistance to mechanical impacts and UV.

Technical features of the following products:

**K-FLEX TWIN SOLAR SYSTEM,
K-FLEX TWIN SOLAR CU SYSTEM
K-FLEX SOLAR R**



Temperature range	From -50° C to +150° C*
Thermal conductivity λ W/(m·K) ENISO 8497 (DIN 52613) - EN 12667 (DIN 52612)	20° C 0,040 W/(m·K) 40° C 0,042 W/(m·K) 60° C 0,045 W/(m·K)
Fire Behaviour	DIN 4102 - B2
Ecological Data	No CFC, HCFC - No formaldeide
UV Resistance	Good, according to ISO 4892/2 Method A

* For applications at a temperature higher than +150 °C, please contact our Technical Department.



FLEXIBLE STAINLESS STEEL TUBE

Material	AISI 316 L		
O.D. (mm)	Internal diameter DN (mm)	Wall thickness (mm)	Max service pressure (bar)
21,4	16	0,18	11
26,7	20	0,18	14
31,7	25	0,20	10



COPPER TUBE

Material	Copper tubes EN 1057			
O.D. (mm)	Wall thickness (mm)	Min. bend radius* (mm)	Max service pressure (bar)	Volume (l/m)
12	0,8	48	79	0,085
15	0,8	60	62	0,141
18	1,0	72	65	0,201

*as a general rule, the radius of a copper pipe bend should be equal to 4 times the outside diameter of the tube.

TEMPERATURE SENSOR WIRE

Temperature Range	from -60° C to +200° C*
Flexible Copper \varnothing 1 mm	CEI 20 - 19/15
Wire Insulation	Silicon Rubber
Rated Voltage	300/500 V
Electric Resistance	20.0 Ohm/km

K-FLEX TWIN SOLAR
SYSTEM

K-FLEX TWIN SOLAR CU
SYSTEM

K-FLEX SOLAR R



L'ISOLANTE K-FLEX

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