

K-FLEX SOLAR™

Specifically designed for solar thermal panels to minimize heat loss.



TUBE SEAM-SEAL

DESCRIPTION

K-Flex Solar™ products provide a quick and easy way to insulate both residential and commercial solar hot water systems. The core of the product line is a flexible, high-temperature rated (300°F / 150°C) insulation with a factory applied UV resistant jacket specifically designed for the solar market. All products are designed to minimize heat loss and simplify installation of the fluid recirculation lines connecting the solar panels and the storage tank. The factory applied jacket protects the insulation from the elements such as UV, mechanical abuse and moisture.

The K-Flex Solar™ product line for residential applications includes:

- K-Flex Solar™ Twin System – ST is flexible stainless steel tubing covered with a high temperature insulation, which has a UV resistant jacket and an embedded thermostat wire. K-Flex Solar™ Twin System – ST combines the supply and return lines into one convenient package making it ideal for new or retrofit applications. The product is offered in 50 or 75 foot lengths, in ½", ¾" and 1" IDs. Wall thicknesses of ¾" and 1" are offered as standard. K-Flex Solar™ - Couplings make connections fast and easy.
- K-Flex Solar™ - R is a high temperature (300°F) insulation with a UV resistant jacket, used on standard copper installations. The K-Flex Solar™ - R is offered in 6 foot lengths and continuous coils of 50 foot lengths. The product is offered in sizes to fit 3/8" to 1 ¼" copper IDs in wall thicknesses of ½", ¾" and 1".

APPLICATIONS

K-Flex Solar™ Twin System – ST and K-Flex Solar™- R are used primarily on residential solar hot water applications. They can be used on either new or retrofit construction. K-Flex Solar™ Twin System – ST is the fastest way to connect the solar panel to the storage tank. With the factory supplied thermostat wire and quick connect compression fittings, installation is a snap. The flexible stainless steel tubing eliminates the issues associated with bending or soldering copper lines on a roof or in confined spaces.

K-Flex Solar™- R can be applied to new or existing copper lines. Butt joints are sealed with K-Flex Solar™ Tape. The product is flexible and easy to cut. It can be slid on or slit, snapped on existing lines and the longitudinal seam sealed with K-Flex® Contact Adhesive.

For commercial applications, K-Flex Clad™ / ECO is available in all standard copper sizes in ½", ¾" and 1" wall thicknesses. It combines K-Flex ECO™ high temperature (300°F) insulation with a tough, UV resistant jacket available in either a white or aluminum finish. See K-Flex Clad™ data sheet for more information.

INSTALLATION

All K-Flex® insulation products are designed to be easy to install. K-Flex® insulation products are flexible, easy to cut and can be field fabricated with no special tools to accommodate various situations. Specific installation instructions are available on each individual product.

OUTDOOR APPLICATIONS

K-Flex Solar™ Products are all protected with a UV resistant jacketing that provides weather, moisture and mechanical abuse protection.

FEATURES & BENEFITS

K-Flex Solar™ Twin System-ST is the ideal solution for insulating the supply and return lines of solar hot water systems. K-Flex Solar™ Twin System-ST offers a complete insulation package with the advantage of easier handling and installation.

Other benefits include:

- Fast and easy connection of the hot water accumulation tank to the solar panel.
- Specifically designed to minimize heat loss.
- UV resistant.
- Saves installation time over a conventional hard copper installation.

RESISTANCE TO MOISTURE VAPOR FLOW

The closed-cell structure and unique formulation of K-FLEX® ECO high temperature (300°F) insulation effectively retards heat loss and resists moisture absorption. The UV resistant jacket on all K-Flex Solar™ products adds a second level of protection against moisture.

SPECIFICATION COMPLIANCE

K-Flex Solar™ Twin System-ST, the complete system:

- K-Flex Solar™ R Insulation (High temperature resistant insulation with UV resistant jacketing).
- Flexible Stainless Steel Tubing (AISI 316L).
- Temperature Sensor Wire (Rated voltage 300 – 500 V).
- Complete range of fittings.
- Mounting Accessories.

K-FLEX SOLAR™

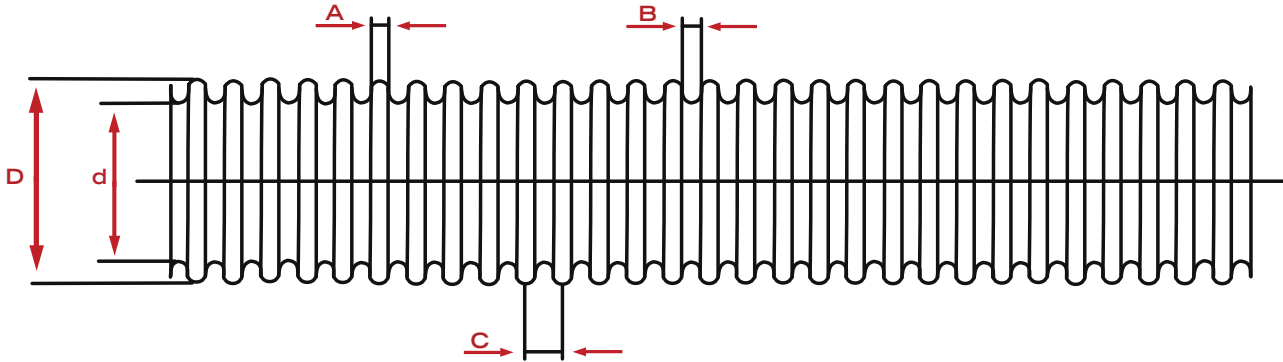
PRODUCT DATA

Physical Properties

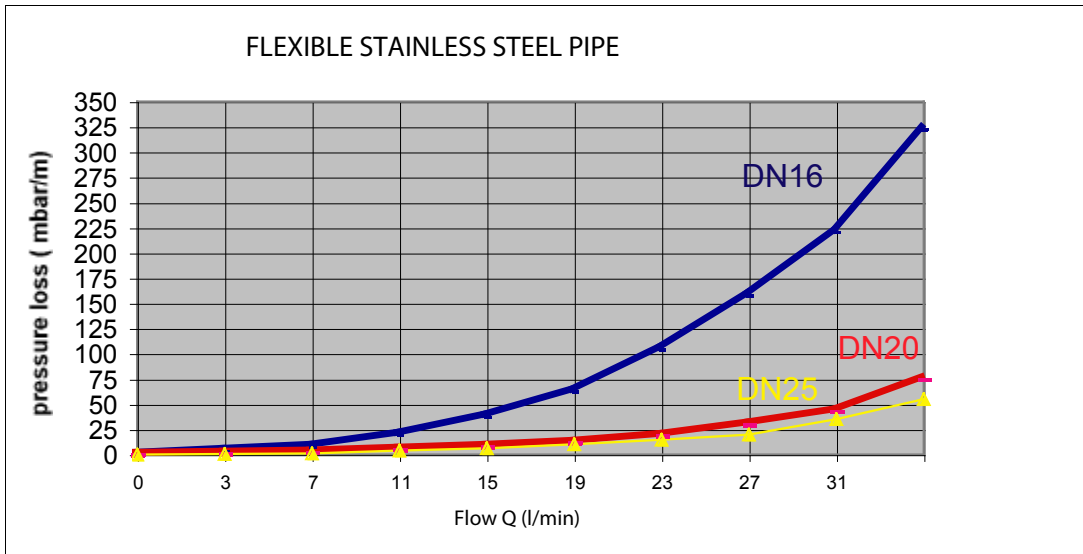
Flexible Stainless Steel Pipe Properties

ID (in)	ID (mm)	A (mm)	B (mm)	C (mm)	d (mm)	D (mm)	WEIGHT APPROX (kg/m)	MAX SERVICE PRESSURE AT 20°C Bars	PITCH QUANTITY IN 100 mm	WALL THICKNESS (mm) / (in)	STATIC BENDING min radius (mm)
1/2"	16	2.81	1.81	4.62	16.5	21.4	0.141	11	22	0.18 / .007	25
3/4"	20	2.51	2.31	4.82	20.5	26.7	0.193	14	21	0.18 / .007	30
1"	25	3.11	2.21	5.3	25.6	31.7	0.261	10	19	0.2 / .008	35

Material: AISI 316L



Pressure Drop Curve Table



Mean Temperature 60° C

Heating fluid

1,2 propylene glycol

1/hr (flow rate)



K-Flex USA - 100 Nomaco Drive - Youngsville, NC 27596 - toll free 800-765-6475 - fax 800-765-6471 - www.kflexusa.com

©January 2009 K-Flex USA. K-Flex® is a registered trademark of K-Flex USA. The GREENGUARD® INDOOR AIR QUALITY CERTIFIED mark is a registered certification mark used under license through the GREENGUARD® Environmental Institute. KFPS-0003-0809