isiflo®

GAS PRODUCT CATALOGUE

aalberts

HYDROGEN READY
Isiflo Sprint and Isiflo Brass is one of the first brands worldwide which obtained KIWA approval for Hydrogen use.

TABLE OF CONTENTS

INTRODUCTION

THE COMPANY

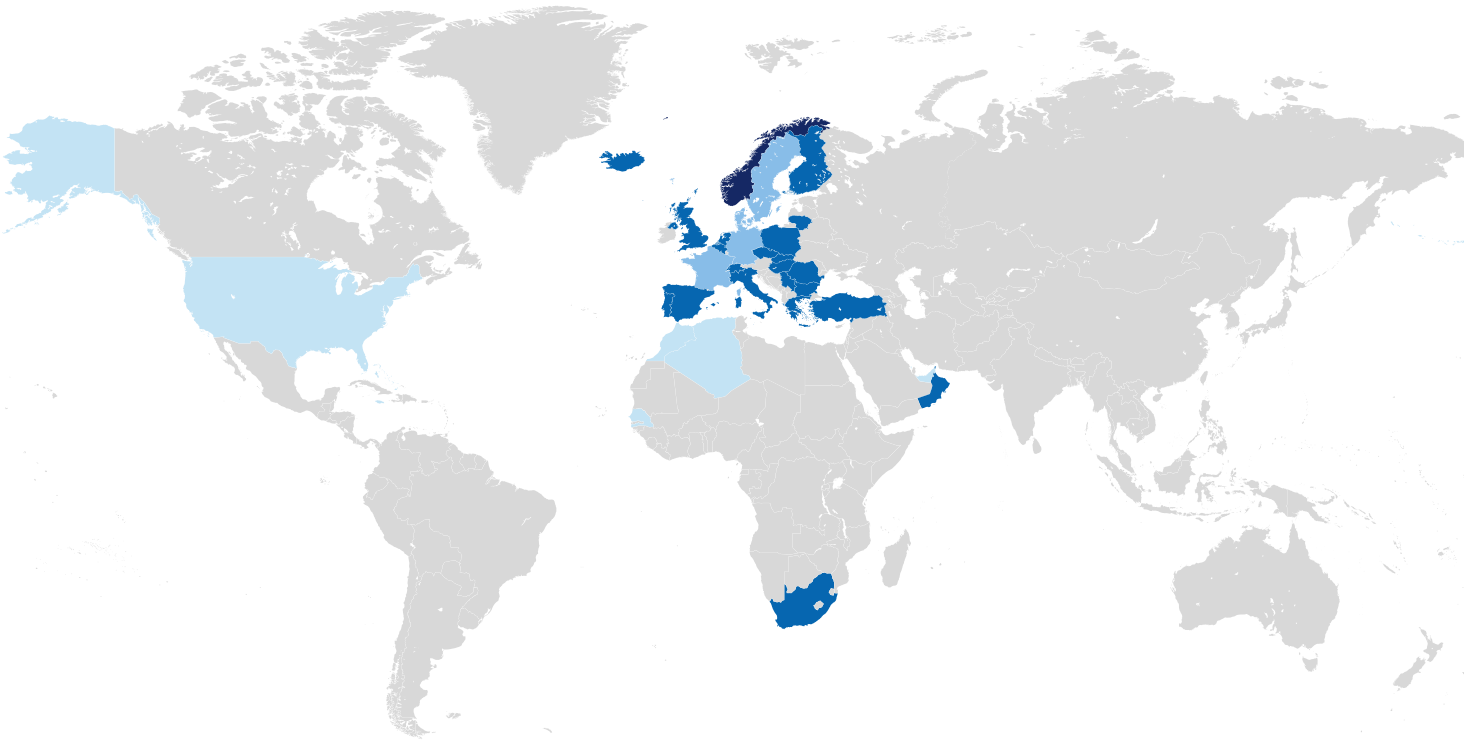
Isiflo is producing high quality products for the Gas, Water and Wastewater sector. All development and production are made locally with a worldwide distribution through network of daughter companies, agents and distributors. Our products are made in both composite material and corrosion resistant brass and most of them fit all kind of pipes. Isiflo is a leading brand in the European utility industry. With support from NCE Raufoss Manufacturing, Isiflo has a long tradition for innovation.

All our products are produced locally in Norway and Sweden. Isiflo has subsidiaries in Sweden, Germany, The Netherlands, France and Denmark and is represented in more than 25 countries around the world.

COMPANY PROFILE

The first Isiflo couplings were introduced to the market back in 1965. In 2004 we joined the Dutch industrial group Aalberts NV. Our headquarter is based in Raufoss Industrial Park in Norway and we are member of the industrial cluster NCE Manufacturing Raufoss. This is a cluster of companies in defence, aerospace, automotive, utility and consumer markets, working together in a technology hub with SINTEF Manufacturing AS as facilitator for exchange of technology and best practice between the companies within the cluster. This is a program supported by the Norwegian state for a learning environment where companies from different sectors come together and share best practice between each other, in consecutively improvement, also in alliance with the academia.

OUR WORLDWIDE NETWORK



1 HEADQUARTER

Our Headquarter is situated in Raufoss Industrial Park:

- Norway

2 SUDSIDIARIES

Our subsidiaries are located in:

- France
- Germany
- Sweden
- Denmark
- The Netherlands

3 DISTRIBUTORS

We have distribution in:

- Great Britain
- Belgium
- Luxembourg
- Spain
- Portugal
- Finland
- Switzerland
- Italy
- Austria
- Hungary
- Lithuania
- Czech Republic
- Poland
- Slovakia
- Romania
- Bulgaria
- Greece
- Iceland
- Turkey
- South Africa
- Oman

4 AGENTS

We have representative agents in:

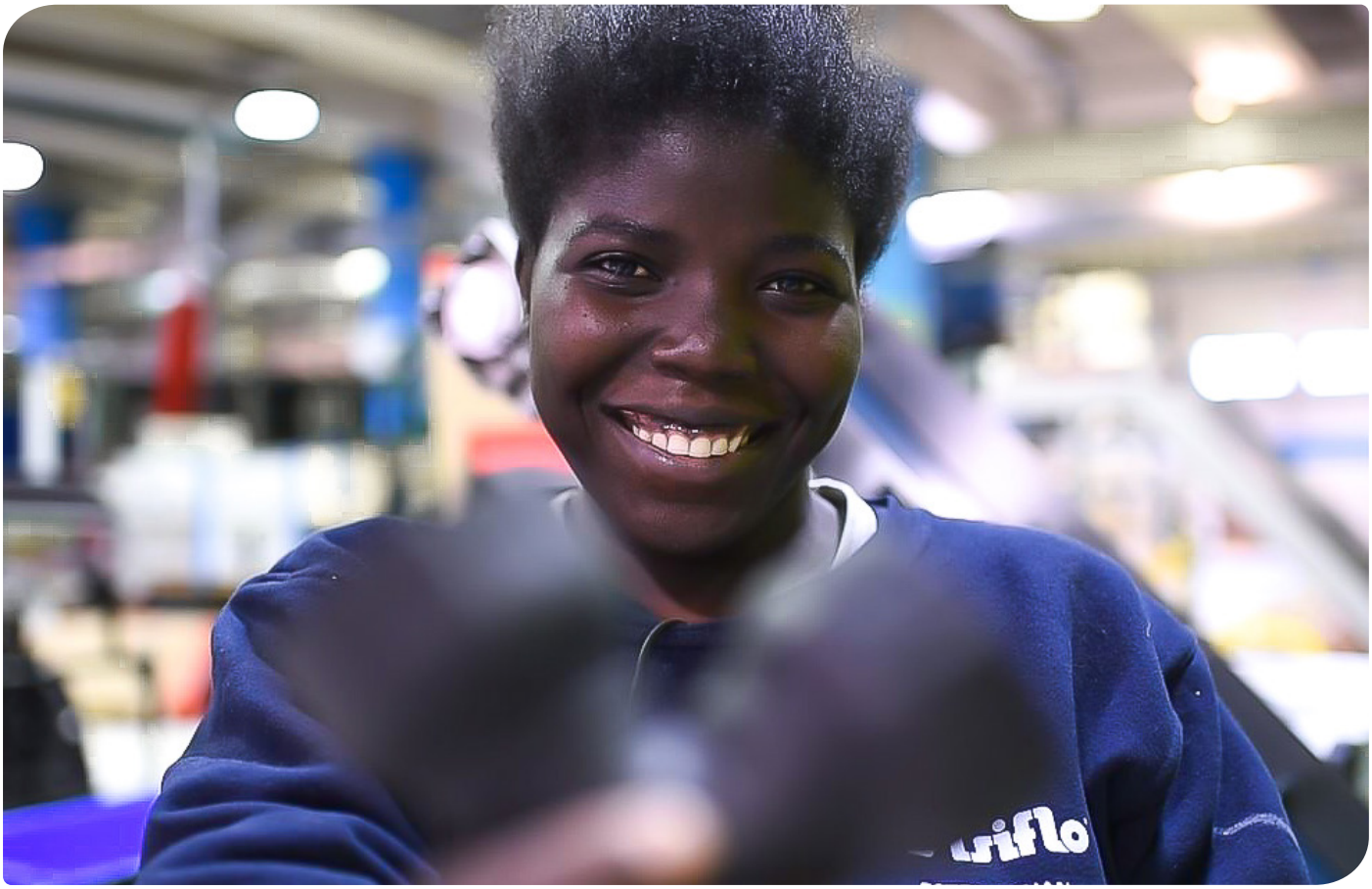
- USA
- Jamaica
- Bahamas
- Algeria
- Senegal
- Morocco
- United Arab Emirates
- Bahrain

PRODUCT DEVELOPMENT

Natural gas is an important global source of energy. There are millions of house connections for gas. The supply of gas through a distribution system of pipe network is transport of energy with a reduced CO2 footprint. Without exception, safety in the distribution network is of highest focus and has no compromise. Thereof, the choice of right material has the highest priority. Our products for gas are approved through the strictest testing and carry the certificates from DVGW, KIWA Gastec, ÖVGW etc. The tests are carried out according to EN437/EN1555/ISO17885. Isiflo Sprint is certified by KIWA Gastec for hydrogen use. Isiflo Brass couplings has been gas approved since 1971 and holds certificate from DWGV, KIWA Gastec and ÖVGW.

INNOVATION

Our Sprint couplings for Gas are results of a cooperation between the development team of Isiflo and the members of NCE Manufacturing in Raufoss Industrial Park. The target was to develop the best coupling in a material combining mechanical properties comparable with metals and corrosion resistance comparable to plastics. By using only the best materials to secure extreme lifetime, we ended on a high tech composite which is a Glass Fiber Reinforced Polymer (GFRP). The goal of the design was to develop the best coupling in composite that makes the life for the user easier and save installation time with a solution that does not require special tools or education. This secures the best quality of the piping system and secures a reliable supply of gas through the distribution network.
Our Brass Couplings for gas are traditional compression couplings which have been under constant development and improvements since 1965, both regarding material use and design. It is a well recognised mechanical coupling made in corrosion resistant material.



PRODUCTION AND QUALITY SYSTEMS

All our products are produced in Norway according to the strictest QA and HSE regulations. The production is certified according to ISO 9001:2015 and ISO 14001:2015.

FUNCTION

In our product range you can choose from push-in and mechanical fittings.

SUSTAINABILITY AND SHARED VALUE CREATION

Our production plant in Raufoss is only using renewable energy in the production. The assembly of the products is done in a labour training centre. This was established in 2014 by Isiflo, together with the local labour office to assist people to improve their job qualification. This includes language training for foreigners and education in QA / HSE systems – which is mandatory for a job qualification. This has shown to be the best integration program in Norway. Isiflo takes social responsibility and care for people.

COMPOSITE COUPLINGS

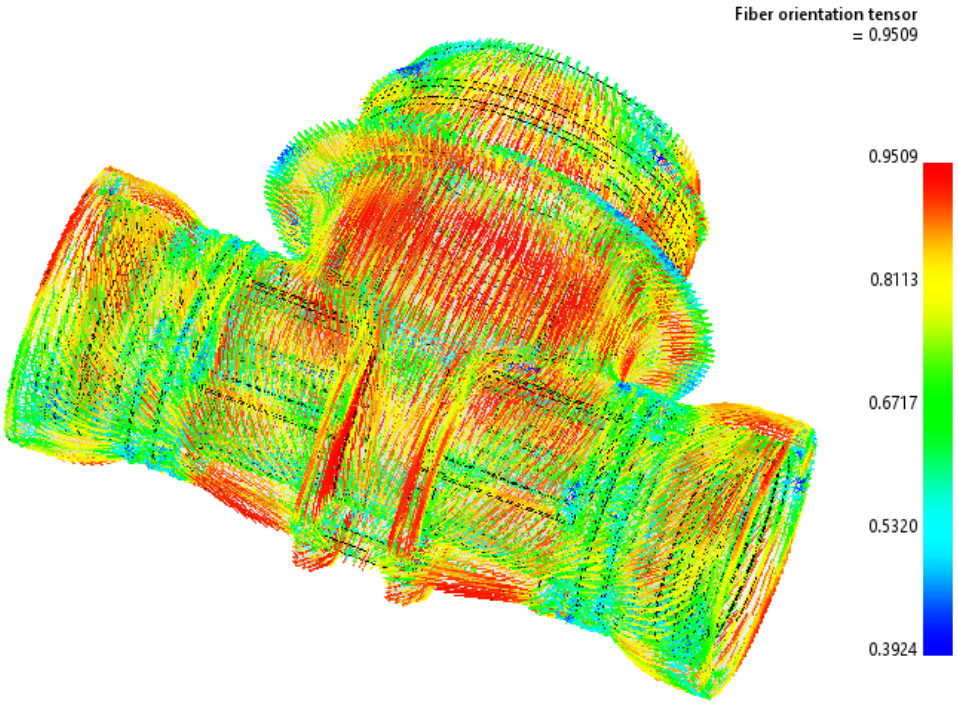
THE MATERIAL
Our composite products are made of a glassfibre reinforced polyamid, developed for high strength and long life. The material technology together with the product design give high strength. Our composite couplings are lead free and corrosion resistant, which results in environmental friendly products with a very long lifetime.

FUNCTION
The designs are based on a time saving push-in solution. The patented sealing system has a push-back ring that activate the grip-ring and compress the sealing in one simple move. This secure a tight connection, even at vacuum and low pressure.

SUSTAINABILITY
Our products are produced and assembled in our new factory in Raufoss, Norway. They are produced with renewable energy and has no emissions to the environment.

COMPOSITE CHARACTERISTICS

The Composite material can be molded into different shapes. By controlling type orientation of the fibres, the material can be designed in a unique way. These characteristics give the material flexible use in many different industries.



ADVANTAGES

The Composite material offers many advantages; in addition to being a sustainable choice, it is a user friendly material with many important properties as:

- CORROSION FREE

- LIGHT WEIGHT

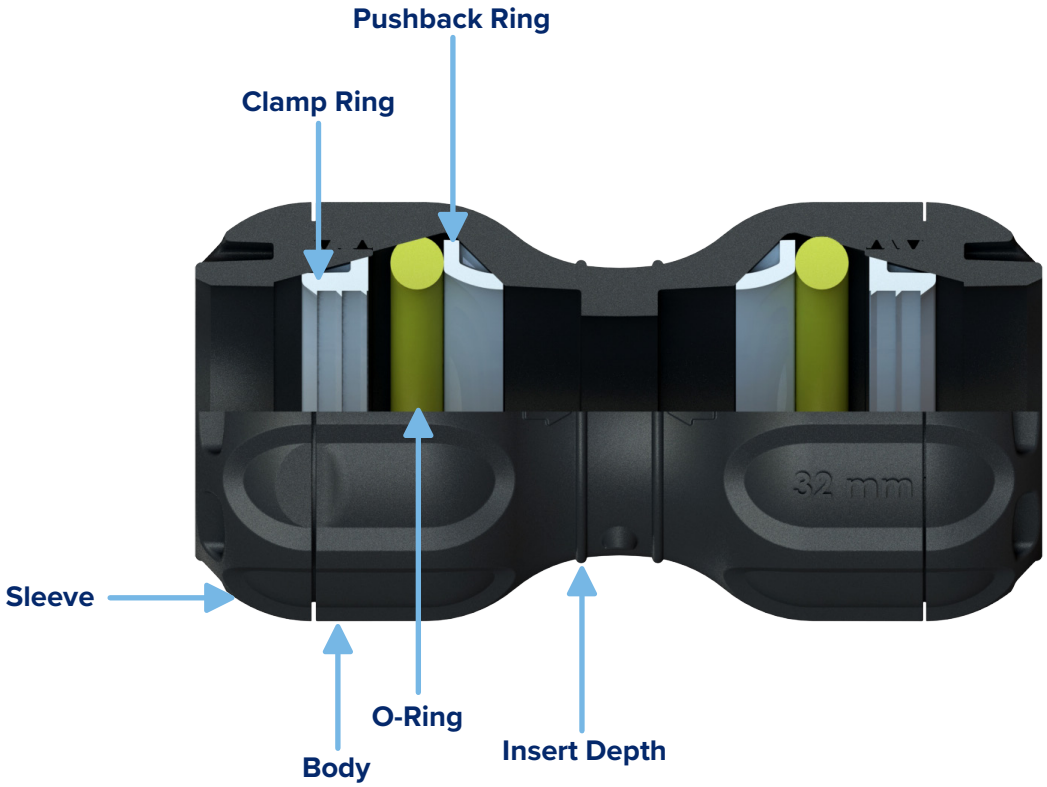
- EXTREME MECHANICAL STRENGTH

- LONG LIFE TIME

FUN FACT

The Airline Industry is constantly increasing the use of Composite material. For instance, the 787 Dreamliner is constructed by more than 50% composite by weight!

TECHNICAL INFORMATION



MATERIAL DESCRIPTION

BODY
Glass fibre reinforced Polyamide 12

O-RING
NBR

PUSH-BACK RING
POM (Polyoxymethylene)

CLAMP RING
POM (Polyoxymethylene)

AREAS OF USE

NATURAL GAS AND HYDROGENE
Temperature: -20˚C to 40˚C
MOP/Operating pressure: Max 10 bar
Pipes: Extruded Pe Pipes after EN - 1555

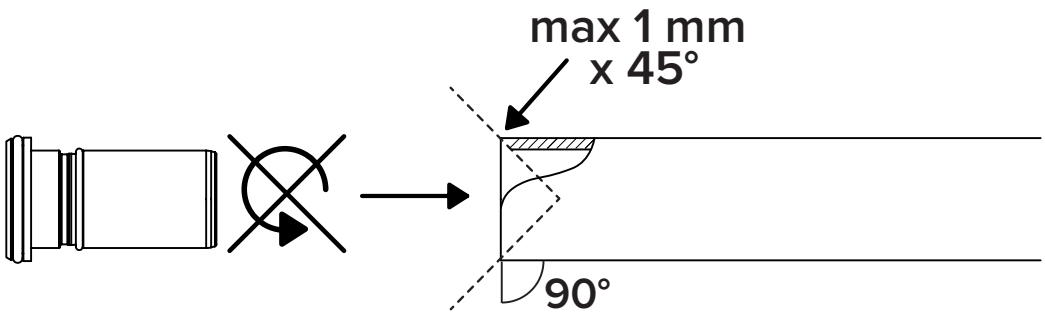
ATTENTION!
Always use our Seal Liner especially developped for use with Sprint to have an approved and safe connection! Not recommended to be used on moulded PE-pipes!

OTHER MEDIA
Ethanol (ex. HX35-HX95), glycol, diesel, gazoline. For other media please contact your local Isiflo representative.

INSTALLATION INSTRUCTIONS

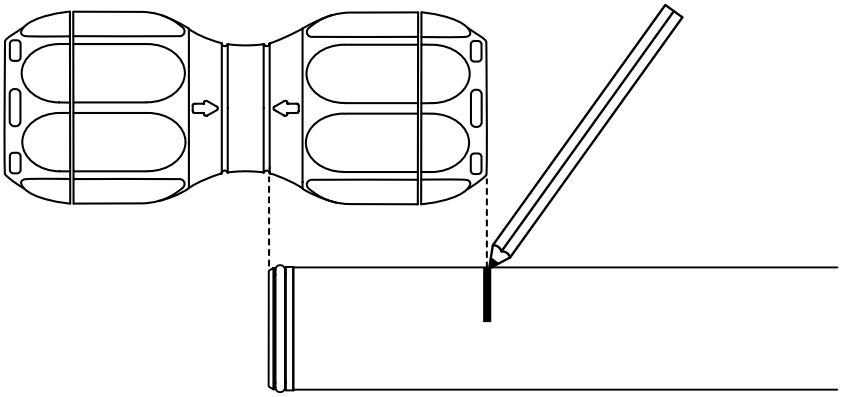
1.

Cut the pipe straight and chamfer the inner edge of pipe with an appropriate tool.
Insert the Seal Liner without twist or use of lubricant.



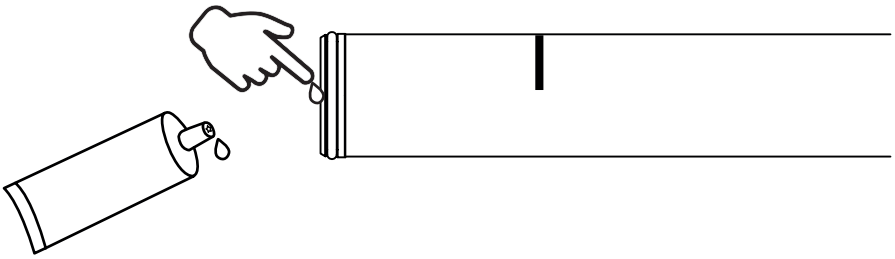
2.

Mark the insert depth on the pipe.



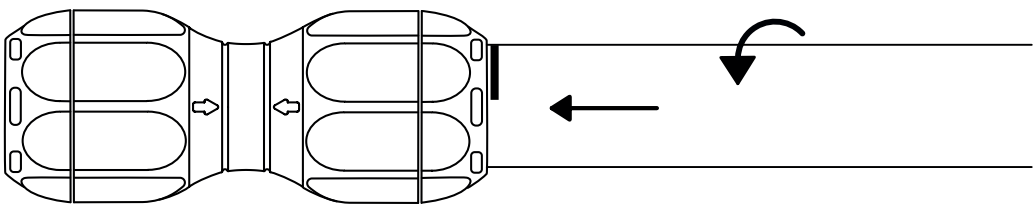
3.

Lubricate the outer O-ring of the seal liner with Molykote G-5511 grease (or similar)



4.

Push the pipe in the coupling with a twist.



For installation video see www.isiflo.com/sprint

SEAL LINER

WHY USE SEAL LINER

The inner surface of the pipe is mostly perfect and undamaged, therefore we seal it with our patented Isiflo Seal Liner. This gives a secure inner and outer seal to the PE pipe.

Benefits

- Timesaving and easy installation
- No need for special tools
- No special qualifications needed

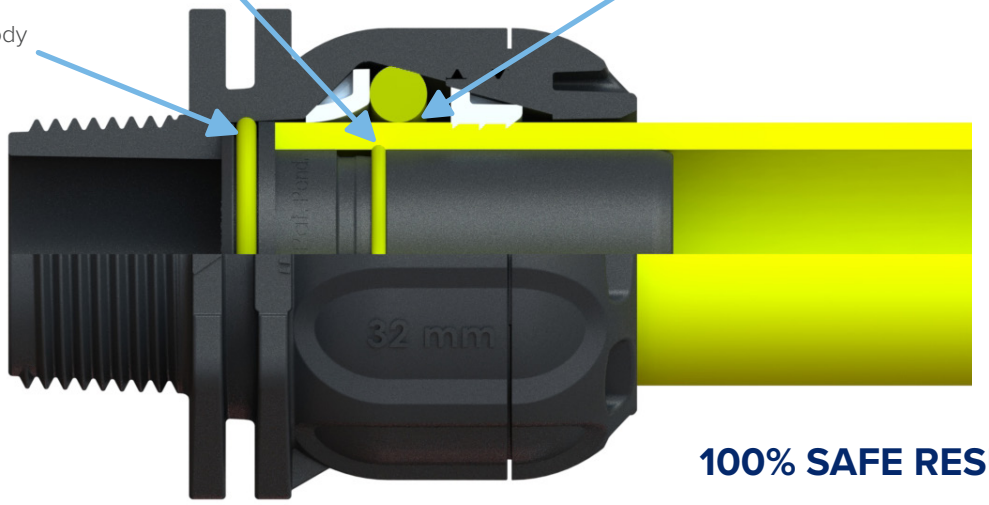
THE TRIPPLE SEALING FUNCTION

The ISIFLO Seal Liner secure tightness through a triple sealing:

1st seal:
Between the liner and the inner surface of the pipe.

2nd seal:
Between the pipe end and the body of the coupling.

3rd seal:
Between the coupling and the outher surface ot the pipe.



100% SAFE RESULT!

Venturi principle in Composite Material
The Isiflo Seal Liner is produced in composite material and designed with a “Venturi principle” to optimize flow and prevent pressure drop and flow restrictions.

Areas of Application

- Gas systems
- Drinking Water Distribution
- Underpressure (Vacuum) systems
- Compressed air

For Assembly Instructions see page 11.

TYPE 182: SEAL LINER

D x d	Item Number
20 x 3,0 SDR 11	8231828
25 x 3,0 SDR 11	8231829
32 x 3,0 SDR 11	8231824
40 X 3,7 SDR 11	8231825
50 x 4,6 SDR 11	8231826
63 x 5,8 SDR 11	8231827
25 x 2,3 SDR 17	8231823

D = Dimension (OD) in mm
d = Pipe wall thickness in mm

SPRINT PUSH-IN COUPLINGS

TYPE 100/102: STRAIGHT COUPLING

D x D	Item Number
20 x 20	8231002
25 x 20	8231021
25 x 25	8231003
32 x 20	8231026
32 x 25	8231022
32 x 32	8231004
40 x 32	8231023
40 x 40	8231005
50 x 32	8231028
50 x 40	8231024
50 x 50	8231006
63 x 50	8231025
63 x 63	8231007

TYPE 105/110/112: MALE COUPLING

D x R	Item Number
20 x ½”	8231102
25 x ¾”	8231103
25 x 1”	8231053
32 x ¾”	8231124
32 x 1”	8231104
32 x 1 ¼”	8231054
32 x 1 ½”	8231058
32 x 2”	8231059
40 x 1”	8231125
40 x 1 ¼”	8231105
40 x 1 ½”	8231055
50 x 1 ½”	8231106
50 x 1 ¼”	8231126
50 x 2”	8231056
63 x 2”	8231107

D = Dimension (OD) in mm
R = Conical pipe thread acc. to ISO 7
G = Cylindrical pipe thread acc. to ISO 228

TYPE 115/116: FEMALE COUPLING

D x R	Item Number
20 x ½”	8231162
25 x ¾”	8231163
25 x 1”	8231153
32 x ¾”	8231169
32 x 1”	8231164
32 x 1 ¼” (GT)	8231154
40 x 1”	8231161
40 x 1 ¼”	8231165
50 x 1” (GT)	8231160
50 x 1 ½”	8231166
63 x 2”	8231167

TYPE 315/316: FEMALE COUPLING FOR FLAT SEALING

D x G	Item Number
25 x ¾”	8233163
25 x 1”	8233153
32 x 1”	8233164
32 x 1 ¼”	8233154

TYPE 120: ELBOW 90°

D x D	Item Number
20 x 20	8231202
25 x 25	8231203
32 x 32	8231204
40 x 40	8231205
50 x 50	8231206
63 x 63	8231207

TYPE 121: MALE ELBOW 90°

D x R	Item Number
20 x ½”	8231212
25 x ¾”	8231213
32 x 1”	8231214
32 x 2”	8231219
40 x 1”	8231245
40 x 1 ¼”	8231215
40 x 1 ½”	8231218
50 x 1 ¼”	8231246
50 x 1 ½”	8231216
63 x 2”	8231217

SPRINT PUSH-IN COUPLINGS

TYPE 123: ELBOW 45°

D x D	Item Number
32 x 32	8231234
40 x 40	8231235
50 x 50	8231236
63 x 63	8231237

TYPE 122: FEMALE ELBOW 90°

D x R	Item Number
25 x ¾”	8231223
32 x 1”	8231224
40 x 1 ¼”	8231225
50 x 1 ½”	8231226
63 x 2” *	8231227

* Female Elbow with GT Fitting

TYPE 125: TEE

D x D x D	Item Number
20 x 20 x 20	8231252
25 x 25 x 25	8231253
32 x 32 x 32	8231254
40 x 40 x 40	8231255
50 x 50 x 50	8231256
63 x 63 x 63	8231257

TYPE 132: FEMALE TEE

D x R x D	Item Number
25 x ¾” x 25	8231323
32 x 1” x 32	8231324
40 x 1 ¼” x 40	8231325
50 x 1 ½” x 50	8231326

TYPE 165: END CAP

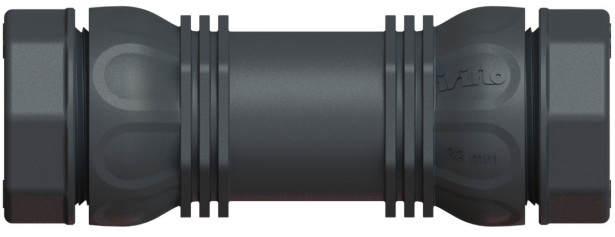
D	Item Number
20	8231652
25	8231653
32	8231654
40	8231655
50	8231656
63	8231657

TYPE 148/149: FEMALE ADAPTOR

D x R	Item Number
25 x ¾”	8211483
32 x 1”	8211484
40 x 1 ¼”	8211485
50 x 1 ½”	8211486

TYPE 101: REPAIR COUPLING

D x D	Item Number
25 x 25	8231013
32 x 32	8231014
40 x 40	8231015
50 x 50	8231016
63 x 63	8231017



INSERT DEPTHS

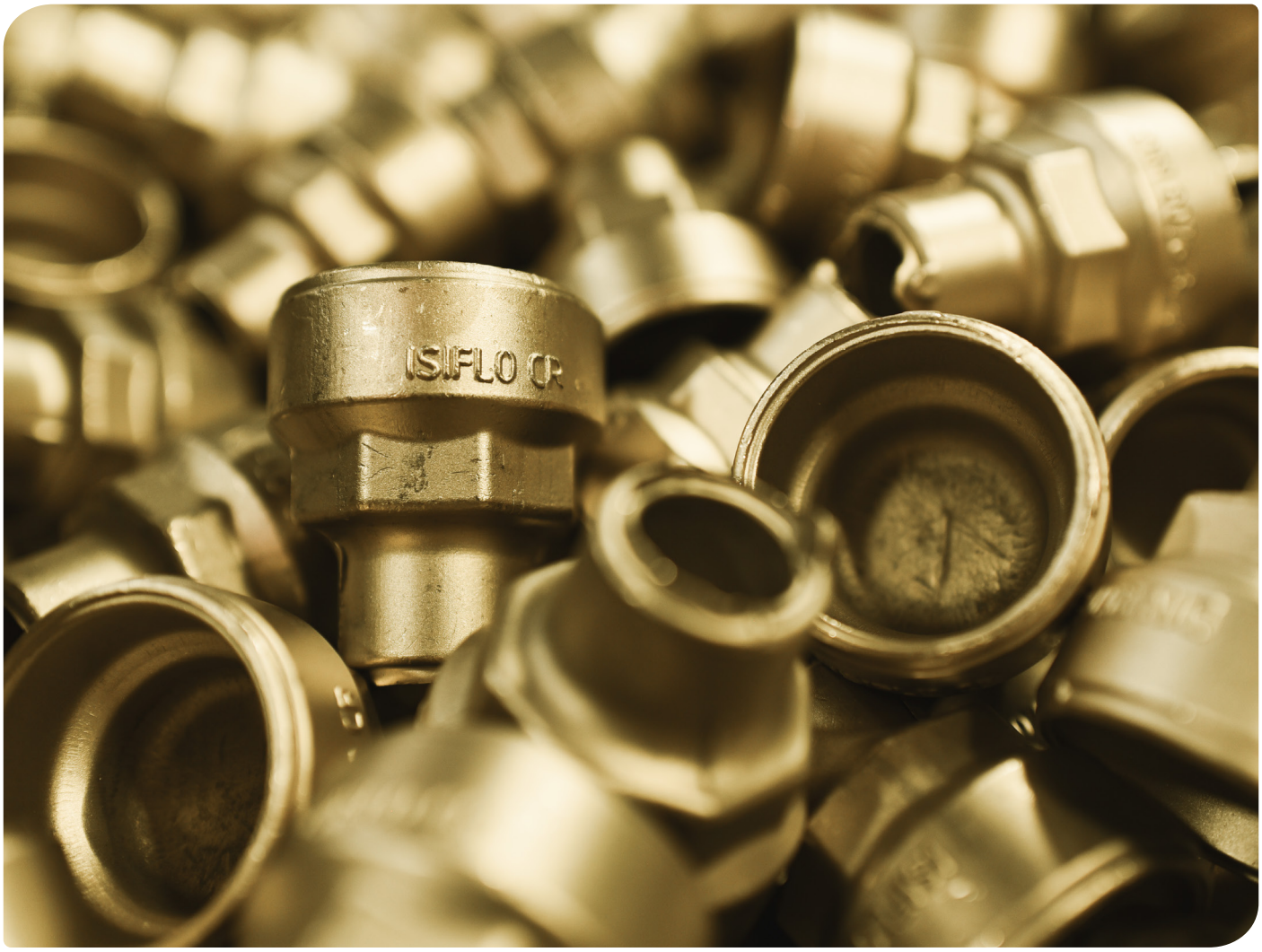
Dimension	Insert Depth		Max distance between pipe ends
	(min.)	(max.)	
25 mm	42 mm	58 mm	42 mm
32 mm	46 mm	63 mm	44 mm
40 mm	59 mm	79 mm	56 mm
50 mm	63 mm	86 mm	62 mm
63 mm	82 mm	103 mm	62 mm

Our new Eco Line Repair Coupling for gas is a cross over from two worlds. It has many of the same advantages as our recognized brass repair coupling, but is manufactured in the same high tech composite materials as our Sprint couplings. The choice of material results in a corrosion resistant connection, without any material sagging over time.

BRASS PRODUCTS

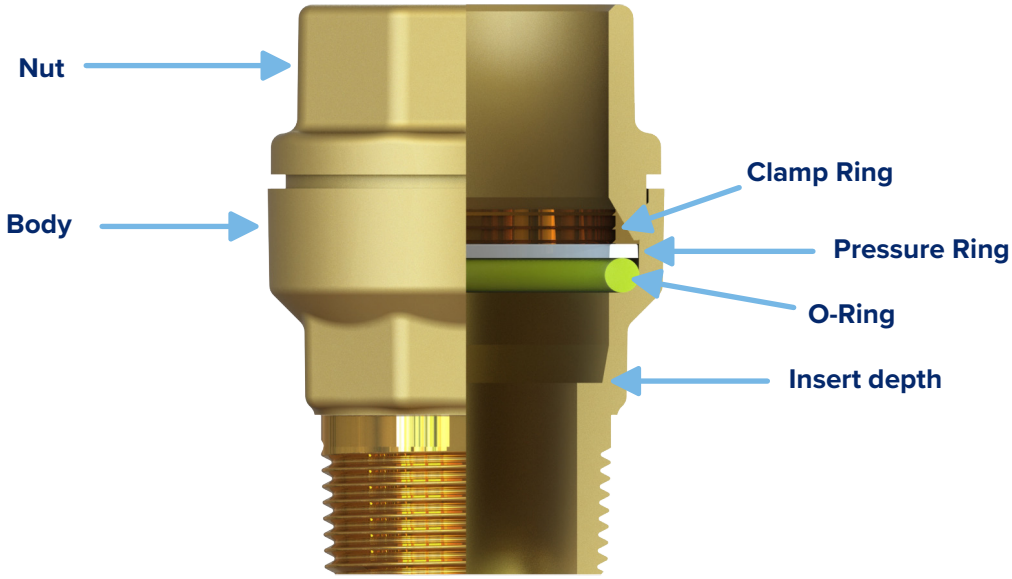
THE MATERIAL
Our brass products are made in CW625N which is a corrosion resistant brass.
Our brass alloy undergoes a hot forging where the brass becomes a mixture of alpha and beta grains. Beta grains contain a slightly higher concentration of zinc which makes the alloy easy to forge. To achieve the right quality, the forging temperature must be controlled and repeatable in line with the cooling process. This process secures a corrosion free material with long lifetime.

PRODUCTION
Our most traditional product group are the brass couplings which have been manufactured in our plant since 1965. It has been subject of continuous development, production improvement and testing.
Our brass couplings are tensile, corrosion resistant and has increased wall thickness which ensures strength and durability.




DIN 8076
DIN 8076

TECHNICAL INFORMATION



MATERIAL DESCRIPTION

BODY
DZR Brass (CW625N)

O-RING
NBR

PRESSURE RING
Composite

CLAMP RING
DZR Brass

AREAS OF USE

NATURAL GAS AND HYDROGENE

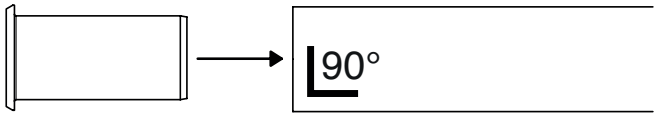
Temperature: -20˚C to 40˚C
MOP/ Operationg pressure: Max 10 bar
Pipes: PEX, PE 80, PE 100 according to EN1555

IMPORTANT!
Always use Isiflo Support Liner Type 180/181.
Check local regulations regarding underground use.

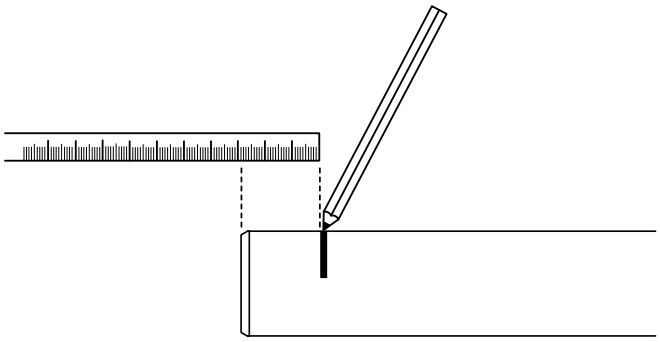
OTHER MEDIA
Ethanol (ex. HX35-HX95), glycol, diesel, gasoline. For other medias get in touch with your local representative.

ASSEMBLY INSTRUCTIONS

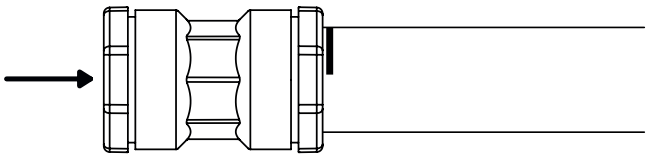
1.



2.



3.



1. Cut the pipe straight, insert the Isiflo Support Liner

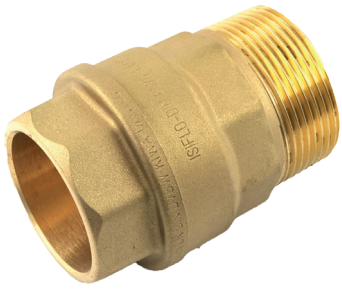
2. Mark the insert depth on the pipe according to the table below.

3. Loosen the nut, do not dismantle. Insert the pipe into the coupling aligned with the mark. Tighten the nut against the body.

INSERT DEPTH

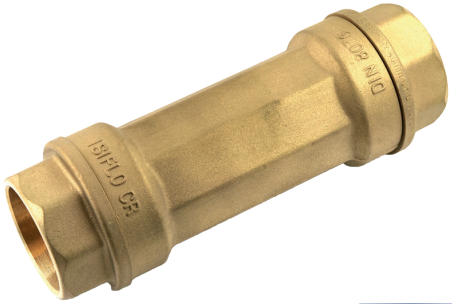
COUPLINGS

Dimension	Insert Depth
20 mm	31 mm
25 mm	32 mm
32 mm	36 mm
40 mm	51 mm
50 mm	52 mm
63 mm	72 mm



REPAIR COUPLING

Dimension	Insert Depth		Max distance between pipe ends
	(min.)	(max.)	
20 mm	31 mm	56 mm	60 mm
25 mm	32 mm	56 mm	58 mm
32 mm	36 mm	57 mm	52 mm
40 mm	51 mm	77 mm	68 mm
50 mm	52 mm	77 mm	66 mm
63 mm	72 mm	79 mm	34 mm



SUPPORT LINER

WHY USE SUPPORT LINER

To ensure that your Isiflo connection is the strongest part of the piping system, use the Isiflo support liner. The Support Liner is designed to support the interior wall of high-density polyethylene pipe for critical joining applications. The liner support the HDPE pipe's end and makes connection end-load resistant. The Isiflo Support liner is made of PA-12 composite material.

EXAMPLE

The image below shows an example of stretch with the use of Seal Liner.

TYPE 180: SUPPORT LINER SDR 11

D x d	Item Number
20 x 3,0	8211808
25 x 3,0	8211809
32 x 3,0	8211804
40 x 3,7	8211805
50 x 4,6	8211806
63 x 5,8	8211807

D = Dimension (OD) in mm
d = Pipe wall thickness in mm

TYPE 181: SUPPORT LINER SDR 17

D x d	Item Number
25 x 2,3	8211803
32 x 2,3	8211814
40 x 2,4	8211815
50 x 3,0	8211816
63 x 3,8	8211817

NOTES:

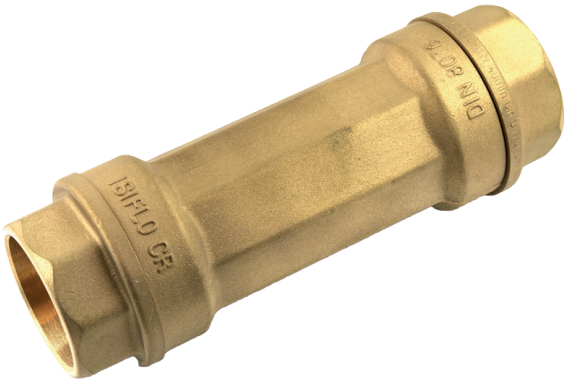
MECHANICAL COUPLINGS

TYPE 100: STRAIGHT COUPLING

D x D	Item Number
20 x 20	631002020
25 x 25	631002525
32 x 32	631003232
40 x 40	631004040
50 x 50	631005050
63 x 63	631006363

TYPE 101: REPAIR COUPLING

D x D	Item Number
25 x 25	631012525
32 x 32	631013232
40 x 40	631014040
50 x 50	631015050
63 x 63	631016363



D = Dimension (OD) in mm
R = Conical pipe thread acc. to ISO 7
G = Cylindrical pipe thread acc. to ISO 228

TYPE 105/110/112: MALE COUPLING

D x R	Item Number
20 x ½”	631102020
25 x ¾”	631102525
32 x ¾”	631103225
32 x 1”	631103232
32 x 1 ¼”	631103240
40 x 1”	631104032
40 x 1 ¼”	631104040
50 x 1 ¼	631105040
50 x 1 ½”	631105050
50 x 2”	631105063
63 x 1 ½”	631106350
63 x 2”	631106363

TYPE 116: FEMALE COUPLING

D x R	Item Number
20 x ½”	631162020
32 x ¾”	631163225
32 x 1”	631163232
32 x 1 ¼”	631163240
40 x 1”	631164032
40 x 1 ¼”	631164040
50 x 1 ¼	631165040
50 x 1 ½”	631165050
63 x 2”	631166363

D = Dimension (OD) in mm
R = Conical pipe thread acc. to ISO 7
G = Cylindrical pipe thread acc. to ISO 228

Other items are available on request!

TYPE 120: ELBOW 90°

D x D	Item Number
20 x 20	631202020
25 x 25	631202525
32 x 32	631203232
40 x 40	631204040
50 x 50	631205050
63 x 63	631206363

TYPE 121/124: MALE ELBOW 90°

D x R	Item Number
32 x 1”	631213232
40 x 1”	631214032

TYPE 125: TEE

D x D x D	Item Number
20 x 20 x 20	631252020
25 x 25 x 25	631252525
32 x 32 x 32	631253232
40 x 40 x 40	631254040
50 x 50 x 50	631255050
63 x 63 x 63	631256363

TYPE 145: BLANKING PLUG

Dimension D (mm)	Item Number
16mm	6211451
20mm	6211452
25mm	6211453
32mm	6211454
40mm	6211455
50mm	6211456
63mm	6211458

NOTES:

CERTIFICATIONS

DVGW CERT

DVGW

CERT

DVGW-Baumusterprüfzertifikat

DVGW type examination certificate

DG-7521CO0472
Registriernummer
registration number

Anwendungsbereich *field of application*	Produkte der Gasversorgung *products of gas supply*
Zertifikatinhaber *owner of certificate*	ISIFLO GmbH An der Schleuse 8, D-58675 Hemer
Vertreiber *distributor*	ISIFLO GmbH An der Schleuse 8, D-58675 Hemer
Produktart *product category*	Werkstoffübergangsverbinder: Übergang auf PE-HD für Gasrohre (7521)
Produktbezeichnung *product description*	Kunststoff-Steckfitting in Durchgangsform für Rohrleitungen aus PE-HD (PE 100 nach GW 335-A2 bzw. PE-Xa nach GW 335-A3) für die Gasversorgung
Modell *model*	isiflo® SPRINT
Prüfberichte *test reports*	Kontrollprüfung Labor: 19/1087/7521/259 vom 29.07.2019 (EBI)
Prüfgrundlagen *test basis*	DVGW G 5600-2/(VP) (01.09.2015)

Ablaufdatum / AZ *date of expiry / file no.* 23.08.2022 / 19-0756-GNV

13.12.2019 Rie A-1/2
Datum, Bearbeiter, Blatt, Leiter der Zertifizierungsstelle
date, issued by, sheet, head of certification body

DVGW CERT GmbH ist von der DAkkS nach DIN EN ISO/IEC 17065:2013 akkreditierte Stelle für die Zertifizierung von Produkten der Energie- und Wasserversorgung.

DVGW CERT GmbH is an accredited body by DAkkS according to DIN EN ISO/IEC 17065:2013 for certification of products for energy and water supply industry.

DAkkS Deutsche Akkreditierungsstelle D-ZE-16028-01-05

DVGW CERT GmbH
Zertifizierungsstelle
Josef-Wirmer-Str. 1-3
53123 Bonn
Tel. +49 228 91 88 - 888
Fax +49 228 91 88 - 993
www.dvgw-cert.com
info@dvgw-cert.com

DVGW CERT

DVGW

CERT

DVGW-Baumusterprüfzertifikat

DVGW type examination certificate

DG-7521CQ0560
Registriernummer
registration number

Anwendungsbereich *field of application*	Produkte der Gasversorgung *products of gas supply*
Zertifikatinhaber *owner of certificate*	RAUFOSS Metall GmbH An der Schleuse 8, D-58675 Hemer
Vertreiber *distributor*	RAUFOSS Metall GmbH An der Schleuse 8, D-58675 Hemer
Produktart *product category*	Werkstoffübergangsverbinder: Übergang auf PE-HD für Gasrohre (7521)
Produktbezeichnung *product description*	Klemmverbinder aus Metall, ausgeführt als Muffen-, Winkel-, T-Stück- oder Reduzierverschraubung
Modell *model*	isiflo®-Universalkupplung
Prüfberichte *test reports*	Baumusterprüfung: 15/007/4507/165 vom 18.11.2015 (EBI)
Prüfgrundlagen *test basis*	DVGW G 5600-1/(P) (01.10.2013) DVGW G 5600-1/kor (19.02.2014)

Ablaufdatum / AZ *date of expiry / file no.* 18.11.2020 / 15-0019-GNE

12.05.2016 Rie A-1/2
Datum, Bearbeiter, Blatt, Leiter der Zertifizierungsstelle
date, issued by, sheet, head of certification body

DVGW CERT GmbH ist von der DAkkS nach DIN EN ISO/IEC 17065:2013 akkreditierte Stelle für die Zertifizierung von Produkten der Energie- und Wasserversorgung.

DVGW CERT GmbH is an accredited body by DAkkS according to DIN EN ISO/IEC 17065:2013 for certification of products for energy and water supply industry.

DAkkS Deutsche Akkreditierungsstelle D-ZE-16028-01-05

DVGW CERT GmbH
Zertifizierungsstelle
Josef-Wirmer-Str. 1-3
53123 Bonn
Tel. +49 228 91 88 - 888
Fax +49 228 91 88 - 993
www.dvgw-cert.com
info@dvgw-cert.com

CERTIFICATE

kiwa

Number	102351/02	Replaces	102351/01
Issued	01-06-2020	Scope	AR 214
Contract number	Q12/008	Page	1-3

Product Certificate

Mechanical fittings for plastic piping systems

Based on pre-certification tests as well as periodic inspections by Kiwa Nederland B.V., the products referred to in this certificate and marked with the GASTEC QA mark, supplied by

ISIFLO AS

may, on delivery, be relied upon to comply with the GASTEC QA approval requirements 214, for "Fitness for admixtures up to and including 100% hydrogen gas" dated June 2019.

Ron Scheepers
Kiwa

This certificate is issued by Kiwa Nederland B.V. in conjunction with the KIWA regulations for Certification 2017.

This certificate consists of 3 pages.
Publication of the certificate is allowed.

Kiwa Nederland B.V.
Sir. Winston Churchillaan 273
P.O. Box 70
2280 AB RIJSWIJK
The Netherlands
Tel +31 88 998 4400
info@kiwa.nl
www.kiwa.nl

supplier
ISIFLO AS
Boks 143
NO-2831, Raufoss
Norway

www.isiflo.com

T +47 61 15 22 24/38
F +47 61 15 20 62

GASTEC QA

CERTIFICATE

kiwa

Number	79196/02	Replaces	79196/01
Issued	15-11-2017	Scope	KE 70
Contract number	Q 01/004	Page	1-5

Product Certificate

Mechanical fittings for polyethylene piping systems

Based on pre-certification tests as well as periodic inspections by Kiwa Nederland B.V., the products referred to in this certificate and marked with the GASTEC QA mark, supplied by

ISIFLO GmbH

may, on delivery, be relied upon to comply with the GASTEC QA Approval Requirements 70, for "Mechanical fittings for polyethylene piping systems for the supply of gaseous fuels – Thermoplastics fittings and metal fittings for pipes of nominal outside diameter less than or equal to 63 mm", dated January 2012.

Luc Leroy
Kiwa

This certificate is issued by Kiwa Nederland B.V. in conjunction with the KIWA regulations for Certification 2017.

This certificate consists of 4 pages.
Publication of the certificate is allowed.

Kiwa Nederland B.V.
Sir. Winston Churchillaan 273
P.O. Box 70
2280 AB RIJSWIJK
The Netherlands
Tel.+31 88 998 4400
info@kiwa.nl
www.kiwa.nl

supplier
ISIFLO GmbH
An der Schleuse 8
D-58675 Hemer

www.isiflo.de

T +49 2372-91975
F +49 2372-13577

GASTEC QA

SVGW
Schweizerischer Verein des
Gas- und Wasserfaches
Grütlistrasse 44
CH-8027 Zürich

Zertifizierungsstelle Gas
Schweizerischer Verein des
Gas- und Wasserfaches
Eschenstrasse 10
CH-8603 Schwerzenbach

SVGW SSIGE

ZERTIFIKAT Nr. 97-156-6 SVGW

Antragsteller: Isiflo GmbH, DE-58675 Hemer
Hersteller: Isiflo AS, NO-2831 Raufoss
Vertreter / Vertreiber: Hess Metalle AG, CH-8953 Dietikon

Gestützt auf das Prüf- und Zertifizierungsreglement der SVGW Prüf- und Zertifizierungsstelle Gas sowie auf den Bericht Nr. **97-156-6** zertifiziert der SVGW folgende Serienprodukte:

Rubrik: Werkstoffübergangsstücke

Bezeichnung: Klemmverbinder aus Metall für Rohre aus PE 80, PE 100 und PE-Xa, Isiflo

Typen:
100, 101, 102, 105, 110, 111, 112
115, 116, 117 — 97-156-6/1
120, 121, 122, 123, 124, 125, 126, 127
130, 131, 132 — 97-156-6/2

Nennweite: DN 25 bis DN 50 (für PE 80 und PE 100 Rohre), DN 24 bis DN 50 (für PE-Xa Rohre)
- Für PE-Gasleitungen muss immer eine Stützhülse eingesetzt werden

Anschlüsse: Metallseitig: Rp 3/8" bis Rp 2" oder R 3/8" bis R 2" nach EN 10226-1
Kunststoffseitig: Klemmringverschraubung

Zertifizierungsgrundlage: DVGW-G 5600-1(P) (2013), DVGW-G 5600-1/kor (2014)

Gültigkeit: Verlängerung bis zum **31.12.2022**

Zertifiziert für:
- einen Betriebsdruck von max. 5 bar im Gasnetz
- Erdgas und Flüssiggase im gasförmigen Zustand

Der Auftraggeber ist somit berechtigt, diese Produkte als SVGW- zertifiziert anzubieten und das SVGW-Konformitätszeichen zu verwenden (Publikation im Zertifizierungsverzeichnis Gas, Kapitel 6.4).

akkreditiert nach:
SN EN ISO/IEC 17065

SCHWEIZERISCHER VEREIN DES GAS- UND WASSERFACHES
Zertifizierungsstelle Gas

Javier Fernandez
Leiter

Zürich, 17.01.2018

ÖVGW
ÖSTERREICHISCHE VEREINIGUNG FÜR DAS GAS- UND WASSERFACH

Österreichische Vereinigung für das Gas- und Wasserfach
A-1010 Wien, Schubertring 14
Telefon: +43 / 1 / 513 15 88-0* / Telefax: +43 / 1 / 513 15 88-25
E-Mail: office@ovgw.at / Internet: www.ovgw.at

Akkreditiert durch das Bundesministerium
für Digitalisierung und Wirtschaftsstandort

ÖVGW GEPRÜFT

ÖVGW-Zertifikat

über die Verleihung des Rechtes
zur Führung der ÖVGW-Qualitätsmarke Gas

Registrierungsnummer
G 3.065

Geltungsdauer
bis Ende Dezember 2023

Inhaber
ISIFLO GmbH
An der Schleuse 8
58675 Hemer
DEUTSCHLAND

◆ Vertrieb in Österreich
FLAMCO Austria GmbH
Aribergstraße 139
6900 Bregenz

Hersteller
ISIFLO AS / NO

Prüfungsart
Erstprüfung

Prüfbericht
1802110-6k vom 10. November 2020

Qualitätsstandards/Prüfrichtlinien
- QS-G 123/1 Ausgabe Mai 2019
- QS-G 123/2 Ausgabe Mai 2019
- QS-G 100 Ausgabe Dezember 2014

Produkt
Klemmverbinder mit dem Markennamen **„ISIFLO-SPRINT Gas"** mit fixierter Kappe

Name des Herstellers oder Warenzeichens:
"ISIFLO Sprint Gas"

Verbindungsart: Volllastwiderstand

Werkstoff des Grundkörpers:
Polyamide PA 12-GF 65

Auslegungsdruck: MOP 10 (max. 10 bar)

Verwendungszweck: GAS

Minimale und maximale Montagetemperatur
(0 °C bis +40 °C)

Kategorie / Anwendungsbereich:
Erdgasleitungsanlagen

zu verbindendes Rohrmaterial / kompatible Rohrreihe (SDR Reihe) / entsprechende Systemnorm: PE 80, PE 100, PE 100-RC / SDR 11 / EN 1555-2

Stützhülsen: separat

Weitere Angaben siehe Seite 2

ZVR 819156001

Die Verleihung erfolgt unter Zugrundelegung der Allgemeinen Geschäftsbedingungen GW 30 ÖVGW-Qualitätsmarke Produkte Gas & Wasser „Voraussetzungen für die Zuerkennung der ÖVGW-Qualitätsmarke für Produkte der Gas- und Wasserversorgung."

Wien, am 4. Dezember 2020

Dipl.-Ing. (FH) Alexander Schwanzer
Leiter der ÖVGW-Zertifizierungsstelle

DECLARATION

kiwa

Declaration of Performance: 102351-01
Conformance certificate: 75524
Date: 10-09-2019
Replaces: -

Declaration of Performance

Declaration of performance to AR 214

Kiwa Nederland B.V. declares that, the Isiflo Sprint couplers manufactured by

ISIFLO AS

complies with the applicable requirements of:
Approval requirement 214: "Fitness for admixtures up to and including 100% hydrogen gas"; 2019

Remarks
The following products are covered under this declaration of performance:
Isiflo Sprint couplers 20 – 63 mm

Mechanical fittings for polyethylene piping systems, SDR 17,6 and SDR 11.

Support liner SDR 11, SDR 17, SDR 17,6

Seal-liner SDR 11 (32, 40, 50 and 63 mm) and SDR 17 (25 mm)

Max. operation pressure 8 bar

Types: 100, 102, 110/112/105, 115/116, 120, 121/124, 125, 148/149,165, 315/316

This declaration consists of one page.

Ronald Karel
Kiwa

Kiwa Nederland B.V.
Wilmersdorf 50
P.O. Box 137
7300 AC APELDOORN
The Netherlands
Tel.+31- 55 539 33 55
Fax +31- 55 539 36 76
www.kiwa.nl

Manufacturer
ISIFLO AS
Boks 143
NO-2831, Raufoss
Norway
T +47 61 15 22 24/38
F +47 61 15 20 62

ARGB – KVBG

The ARGB-KVBG laboratory certifies the conformity with the Belgian requirements for mechanical fittings for PE pipes.
Le laboratoire de l'ARGB certifie que les raccords mécaniques pour les tuyaux en PE sont conformes aux exigences belges.
Het laboratorium van de KVBG verklaart dat de trekvaste mechanische verbindingen voor PE buizen conform zijn aan de Belgische eisen.

Certificate number:
N° du certificat :
Certificaat nummer: **C-14-3663-A**

Date of issue:
Date d'édition:
Datum van aflevering: **01-08-2014**

Manufacturer:
Fabricant:
Fabrikant:
RAUFOSS Water & Gas AS, Norway
Raufoss Industripark
Enggata 40 – building 1 (main office)
NO – 2831 Raufoss

Distributor:
Distributeur:
Verdeler:
HSF B.V.
Marketing 23
NL - 6921 RE Duiven

Type:
ISIFLO Sprint Couplers 20 - 63mm
Mechanical fittings in PA for PE piping systems (PE100 - SDR11)
Raccords mécaniques en PA pour tuyaux en PE (PE 100 - SDR11)
Trekvaste mechanische verbindingen in PA voor PE buizen (PE 100 - SDR11)
MOP: 8 bar

Type 100
straight couplers PE x PE
20 x 20, 25 x 25, 32 x 32, 40 x 40, 50 x 50 and 63 x 63 mm.

Type 110/112
straight couplers PE x male thread
20 x Rc½'', 25 x Rc¾'', 32 x Rc¾'', 32 x Rc1'', 40 x Rc1'', 40 x Rc1¼'', 50 x Rc1½'' and 63 x Rc2''.

Type 115/116
straight couplers PE x female thread
20 x Rc½'', 25 x Rc¾'', 25 x Rc1'', 32 x Rc¾'', 32 x Rc1'', 40 x Rc1'', 40 x Rc1¼'' and 50 x Rc1½''.

ARGB-KVBG – Rodestraat 125 – BE - 1630 Linkebeek
Phone : +32.02.383 02 00 – Fax : +32.02.380 87 04 – E-mail : kvbg@kvbg.be or argb@argb.be / www.gasinfo.be

ENVIRONMENT

DAILY FOCUS ON ENVIRONMENTAL PERFORMANCE

We are committed to protecting the environment and we are actively working to reduce any negative environmental impacts that are results from our operations. We are engaged in environmental work and want to work long-term with dedication to implement environmental improvement measures in our businesses.

We are certified and work in accordance with ISO 14001 -2015, as well as relate to the public requirements and the information duty regarding important environmental aspects.

We work actively to reduce our energy consumption and CO2 footprint. Throughout the entire production and distribution chain, we consider environmental measures; from commodity production to retail. Local, regional and global environmental aspects is taken care of. Our goal is to have a sustainable development, so that we take the future generations into account. We use 100% renewable energy in our production, and work with local suppliers in addition to perform active search for more sustainable materials and processes. to improve our carbon footprint.

CORPORATE ENVIRONMENTAL POLICY

- We work actively to avoid environmental emissions and pollution.
- We use short-lived raw materials and minimize the handling of goods at work.
- We optimize the transport of goods to our customers.
- We recycle waste from our production.
- We are sorting 100% of our waste into environmental stations.
- We monitor our performance through internal evaluations and reporting, and sharing the results with our stakeholders.
- We require our subcontractors and partners to follow the same principles.
- We have our own development department focusing on research and development of environmentally friendly -and future oriented products.
- We provide necessary information, instruction and training.
- We join international networks to stay on top of the future regulations and learn for new initiatives to improve our sustainable performance.

STANDARDS

ISO 14001
The corporate environmental policy is an integral part of Isiflo AS business strategy, and we are dedicated to implement, maintain and improve our environmental performance. The same way our products have to meet an international demand of high quality, Isiflo AS is certified pursuant to ISO 14001, the international standards of environmental management.

ISO 9001
Isiflo AS holds in addition the certificate ISO 9001:2000. ISO 9001:2000 is a series of international standards that specifies requirements for a quality management system. The organization needs to demonstrate its ability to consistently provide product that meets customer and applicable regulatory requirements, and aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable regulatory requirements.

CONCEPT
The Isiflo business concept implements lasting values through the development and supply of environmental friendly products of high quality to meet all customer requirements related to water, drainage and gas distribution networks. Environmental measures shall be taken into consideration throughout the production and distribution chain; ranging from the production of raw material to the end user. Local, regional and global environmental aspects shall be considered.

GENERAL CONDITIONS OF SALE

1. GENERAL

1.1. These general conditions of sale, together with our offer and order acceptance, constitute the entire agreement between the parties unless explicitly set aside in the order acceptance or by written agreement between the parties. The customer's general purchase terms or terms and conditions contained in other documents apply only if explicitly accepted in writing by us. In the event of conflict between the documents of the agreement they shall have priority as follows: the offer, the order acceptance and the general conditions.

2. OFFER, SALE, QUALITY

2.1. The purchaser accepts our General Conditions of sale at the time of receipt of our order confirmation.
2.2. Standard products are delivered, unless otherwise stated, in our normal quality and with our usual dimensional tolerances. **2.3.** Specifications concerning weight, dimensions, performance, ratings, prices, technical and other data, included in booklets, catalogues, prospects, circulars, advertisements, price lists, web page etc., constitute an approximate guide and are not binding on us unless they are explicitly included in the agreement.

3. QUANTITY

3.1. Under agreements to supply goods, which are not stock goods in standard packaging, we have the right to deliver up to 10% more or less than the agreed quantity unless a different margin is specifically agreed. The customer is not entitled to claim delivery compensation, or to reject delivered goods as long as we keep within this margin. Deliveries exceeding the agreed quantity will be charged at the agreed unit price. Unless otherwise agreed, we are entitled to undertake part deliveries. **3.2.** Non-standard goods cannot be returned. **3.3.** Standard goods can be returned with the return allowance of 20% of net purchase price + shipping. The product must be in salable condition and in original packaging.

4. DELIVERY

4.1. Delivery dates and periods stated by us are non-binding unless agreed otherwise. Binding dates are not fixed dates if they are not expressly stated as such. **4.2.** Unless otherwise agreed our terms of delivery is EXW Raufoss (Incoterms 2016) from a location designated by us, and the method of packaging and the packaging material will be determined by us. **4.3**. If the agreement calls for final specification of delivery by a stated date, the customer is obliged to furnish the specification by that date. If he fails to do so, we have the right to cancel and claim compensation or make the specification ourselves and deliver at our own option. If the customer specifies for a larger quantity than the original order, and we are able to deliver, he will be charged for the excess at the price applying at the time of delivery. **4.4.** The customer is not entitled to cancel by reason of delay except as otherwise specifically agreed or unless it would be evidently unreasonable to keep the agreement. Nor does delayed delivery entitle the customer to present any other claim, including any claim for compensation, unless specifically agreed in writing.

5. FORCE MAJEURE

5.1. If after the conclusion of an agreement any circumstances occur which are beyond our control and which render impossible or considerably impede due performance of our obligations, the customer is barred from claiming compensation and the delivery date will be postponed. Such circumstances include, but are not limited to industrial disputes, fire, flood, lightning, landslide, war, mobilization and other military drafting of similar extent, requisitioning, embargo, currency restrictions, shortage of transport, breakdown of machinery, export and import restrictions, insurrection, riots and disturbances, industrial accidents, insufficient supply of raw materials, water, power and fuel, default in contracts with subcontractors, and other substantial interference with production. **5.2.** Delays due to any circumstances as aforesaid do not entail any cancellation right unless the delays are of a permanent nature. In such case either party may cancel the agreement in whole or in part. **5.3.** If we intend to invoke any circumstance as aforesaid, we are obliged to notify the customer thereof without undue delay.

6. TERMS OF PAYMENT

6.1. Unless otherwise agreed our terms of payment are date of invoice + 20 days. Goods will be invoiced at the date of delivery. **6.2.** If the customer fails to pay any invoice when due, we shall have the right to charge interest on the delayed amount as well as defer deliveries under this or any other contract with the customer. **6.3**.We reserve the right to require the customer to furnish, before delivery, security acceptable to us for due payment. **6.4.** In any case we may invoice the goods when we are ready for delivery, when the customer has delayed delivery, and this delay is not due to fault on our part. **6.5**. All installment deliveries may be separately invoiced and shall be paid for without regard to subsequent deliveries. Delays in delivery or non-conformities in any instalments shall not relieve customer of his obligation to accept and pay for remaining installments. **6.6.** All goods remain the property of Isiflo AS until payment is received in full.

Your Isiflo representative:

Isiflo AS
Boks 143
2830 Raufoss
Norway
www.isiflo.com

CERTIFICATIONS:

DVGW GASTEC QA OVGW ISO 17885

aalberts