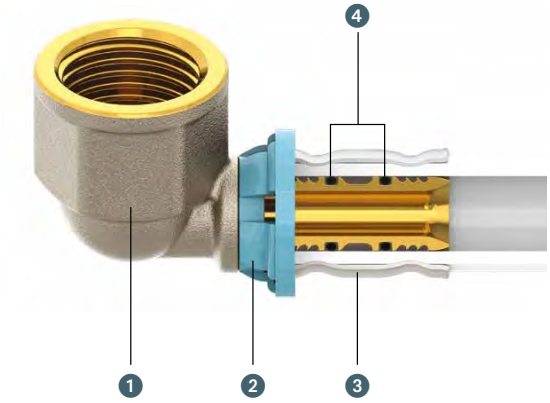
dupont
the joy of water

Technische Fiche
054.7xxx

Press fittings
Gerpex LBP

Features
Gerpex LBP, the new press fitting for multilayer pipe by Emmeti, has been developed to guarantee a water loss, in case of non-pressing, and a quick and safe pipe-fitting junction, when pressed correctly with the specific equipment.
The special fitting profile and the use of the double o-ring guarantees a perfect and lasting hydraulic and mechanical seal, and compatibility with 5 different pressing profiles (TH, B, U, H, F).
The LBP function (Leak Before Pressed) allows the operator to easily identify any unpressed fittings during the system leak test, thus avoiding possible damage.

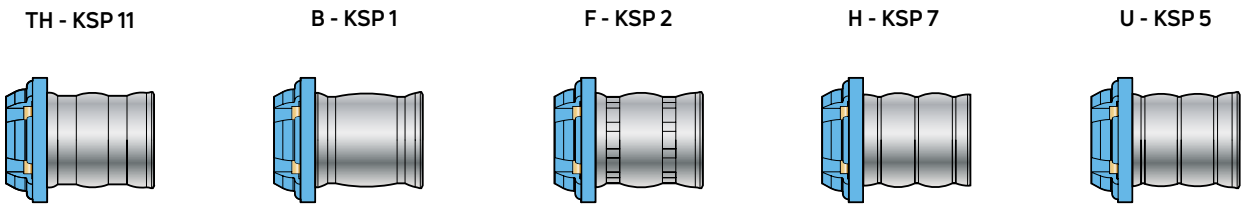
Construction details
The stainless steel sleeve is connected to the fitting along with the light blue plastic ring.
Each sleeve has the indication of the diameter.
The plastic ring has four important functions:
- prevents electric contact between the layer of aluminium of the pipe and the brass body of the fitting, thus preventing the risk of possible corrosion;
- it allows the installer to check, via the sight holes, that the pipe has been inserted fully into the fitting;
- it guides the correct positioning of the jaws around the sleeve;
- fixes the sleeve to the fitting.



1. Body in brass CW617N - DW (UNI EN 1264 and 12165)
   Threads: UNI EN ISO 228-1, UNI EN 10226
2. Nylon sleeve ring, dielectric
3. AISI 304 stainless steel sleeve
4. EPDM dual o-ring

pluri profile

Compatible pressing profiles



		SIZE			
		16	20	26	32
PROFILES	TH	✓	✓	✓	✓
	B	✓	✓	✓	✓
	F	✓	✓	✓	✓
	H	✓	✓	✓	✓
	U	✓	✓	✓	✓

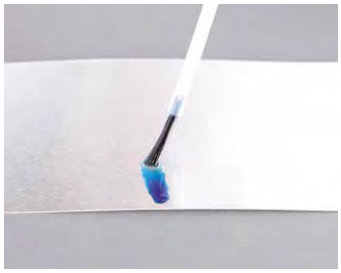
Alle drukfouten en wijzigingen voorbehouden.

Quality controls

The whole manufacturing process of Emmeti multilayer pipe is subject to strict controls carried out before, during and after production from the raw materials through to the finished product.

The production department and analytical laboratory, carry out checks including the following:

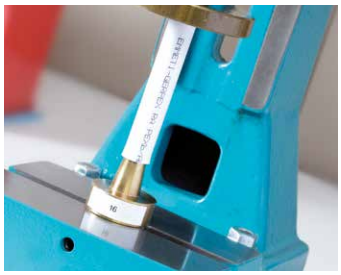
MFI (Melt Flow Index)
Verify compliance of the polymer raw materials to be used.



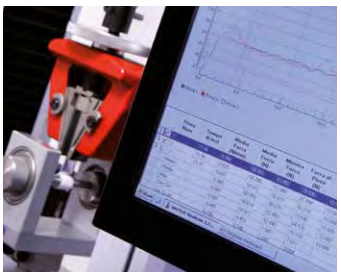
INK Test
Ensure that the strip of aluminium is clean.

Dimensional control in production
Automatic computerised control of pipe dimensions.

Ball Test
To ensure that there are no occlusions or deformations on the inside of the pipe by using compressed air to pass a ball through the pipe.



Enlargement Test
Test performed both in production and in the laboratory to verify the quality of welds and the adhesion of individual layers.



Peeling
Test resistance to delamination between the inner layer and the aluminium.

Verify degree of bonding (cross-linking)
Verification performed in the laboratory to check the correct level (%) of cross-linking.

Resistance to internal pressure
Test resistance to a specific internal pressure at 95 °C; the pressure value is chosen as a function of the type of pipe (maximum diameter, aluminium thickness) and the duration of the test (22h, 165h, 1000h), by referring to the relative regression curves.

Thermal cycles
Test on a system consisting of the pipe and fittings and subjected to 5000 temperature cycles (20 to 95 °C) of 30 minutes each with a pressure of 10 bar.

Pressure cycles
Test on a system consisting of the pipe and fittings and subjected to 10000 pressure cycles (from 1 to 30 bar) at 23 °C with a frequency of 0.5 Hz.

Alternating bending Test
Vibration test on a system consisting of pipe and fittings which is subjected to 330 alternating bending cycles with an internal pressure of 15 bar at room temperature.

Features
of the Gerpex System

Avoiding electrical voltage
Multilayer Gerpex pipes are made with a combination of aluminium and cross-linked polyethylene. Both the inner and outer pipes wrap around the aluminium pipe, effectively sealing it. This design eliminates any direct electrical contact with the metal part of the pipe.
In addition, at each joint, the Gerpex multilayer pipes are isolated from the joint fitting by means of a plastic ring.
This ensures that no direct current flow can be generated and avoids induced electrical voltage across the pipe system.

Chemical resistance
The chemical characteristics PE-X make the Gerpex pipe system resistant to of the following substances:

- Plaster, concrete, mortar and cement
- Disinfectants and cleaning agents according to DVGW technical sheet W291 and DIN 2000
- All natural materials containing drinking water according to DIN 2000
- Anti corrosives according to DIN 1988 part 4

Multilayer Gerpex pipes must be protected from substances such as bitumen, grease, solvents and mineral oils.
For compatibility with other chemical compounds, reference should be made to the ISO/TR 10358:1993 tables.

Gerpex LBP and Gerpex pipe fittings must be protected with an appropriate coating if used in environments exposed to the danger of corrosion such as being laid in continuous flooring, in spaces with permanent humidity, in the presence of aggressive gases or concealed in direct contact with cement mortar or binders of lime.

O-ring seals (in EPDM) are not compatible with petroleum products and therefore the use of lubricants derived from petroleum is prohibited. The Gerpex system can be used with water and glycol mixtures to reach temperatures down to -10 °C.

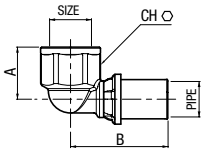
Heat insulation
The hot water distribution networks for domestic use or heating, must be insulated in compliance with current legislation.
The Gerpex pipes pre-insulated with a sheath can be used in these systems for the distribution of cold or refrigerated water (air conditioning systems), preventing the risk of condensate (after verification in compliance with the UNI EN ISO 12241-2002 Standard).

Resistance to UV rays
The Gerpex multilayer pipes must be protected from exposure to direct sunlight.
They therefore must be covered during transport or storage, if they do not have the original packaging.
The Gerpex pipes laid freely without protective pipes must be protected from prolonged exposure to solar rays (several months) by a covering.
The UV protection function of the Gerpex pipes can only be performed by the insulating layer (insulated Gerpex), by opaque sheets or by wrapping them in dark materials

No hygiene risks
The Gerpex multilayer pipes are approved for use in installations with drinking water.
The lack of hygiene risks, meaning suitability for hot and cold drinking water, has been certified in compliance with the KTW Directives by the DVGW research institute and is subject to constant external control.
The use of the Gerpex system in sanitary systems is guaranteed by the certificates of suitability for drinking water in compliance with current legislation.
The Gerpex multilayer pipes contribute considerably to preventing the proliferation of legionella, thanks to the smooth surface of the internal pipe in PE-X, which does not promote deposits.

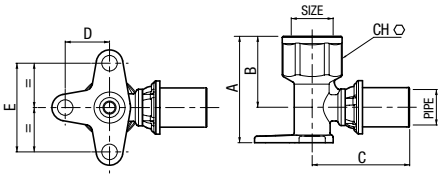
Gerpex LBP press fittings

Female connecting elbow LBP



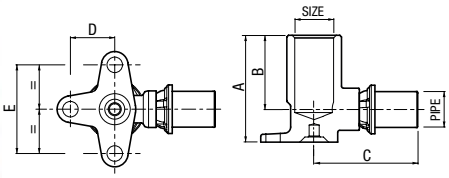
Size	Pipe	A mm	B mm	Ch mm
16 x Rp1/2"	16x2	23.5	44	24
20 x Rp1/2"	20x2	23.5	44	24
20 x Rp3/4"	20x2	28	48	30
26 x Rp3/4"	26x3	28	52.5	30
32 x Rp1"	32x3	33	56.5	38

Female elbow LBP with flange

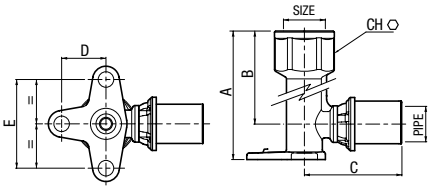


Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm
16 x Rp1/2"	16x2	48	32	44	20	40	24
20 x Rp1/2"	20x2	48	32	44	20	40	24
20 x Rp3/4"	20x2	56	37	48	20	40	30
26 x Rp3/4"	26x3	56	37	52.5	20	40	30

Female elbow LBP H 52 mm with flange

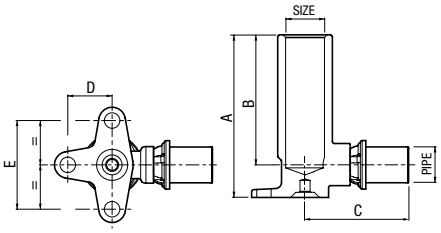


Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm
16 x Rp1/2"	16x2	52	36	51	20	40	24
20 x Rp1/2"	20x2	52	36	51	20	40	24



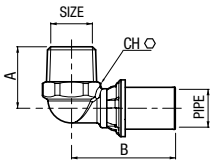
Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm
16 x Rp1/2"	16x2	68	52	44	20	40	24
20 x Rp1/2"	20x2	68	52	44	20	40	24

Long Female elbow LBP H 78 mm with flange



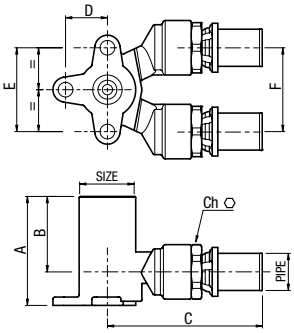
Size	Pipe	A mm	B mm	C mm	D mm	E mm
16 x Rp1/2"	16x2	78	62	51	20	40
20 x Rp1/2"	20x2	78	62	51	20	40

Male connecting elbow LBP



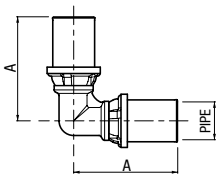
Size	Pipe	A mm	B mm	Ch mm
16 x R1/2"	16x2	26	44	22
20 x R1/2"	20x2	26	44	22
20 x R3/4"	20x2	31.5	48	27
26 x R3/4"	26x3	31.5	52.5	27
26 x R1"	26x3	38	56.5	34
32 x R1"	32x3	38	56.5	34

Female double elbow LBP H 52 mm with flange



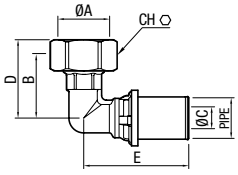
Size	Pipe	A mm	B mm	C mm	D mm	E mm	F mm	Ch mm
16 x Rp1/2"	16x2	52	36	74	20	40	40	24
20 x Rp1/2"	20x2	52	36	74	20	40	40	28

Intermediate elbow LBP



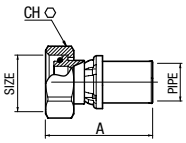
Size	Pipe	A mm
16 x 16	16x2	41.7
20 x 20	20x2	43.7
26 x 26	26x3	51.2
32 x 32	32x3	54.2

Elbow LBP with female swivel nut, flat seal



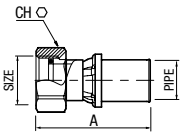
Size	Pipe	A mm	B mm	ØC mm	D mm	E mm	Ch mm
16 x G1/2"	16	1/2"	26	7	32.8	44	25
20 x G3/4"	20	3/4"	30	10.5	34.5	47	30

Straight LBP with female swivel nut, o-ring seal



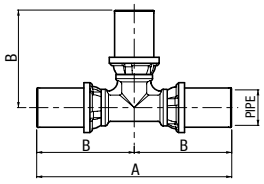
Size		Pipe	A mm	Ch mm
Ø 16 - 24x19	O-ring	16x2	45.5	27
Ø 20 - 24x19	O-ring	20x2	45.5	27
Ø 16 - Eurocone G3/4"	O-ring	16x2	46	30
Ø 20 - Eurocone G3/4"	O-ring	20x2	46	30

Straight LBP with female swivel nut, flat seal



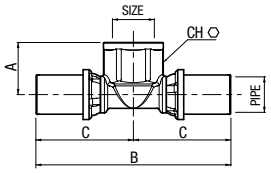
Size	Pipe	A mm	Ch mm
16 x G3/8"	16x2	49.5	19
16 x G1/2"	16x2	49.5	25
16 x G3/4"	16x2	49.5	30
20 x G1/2"	20x2	49.5	25
20 x G3/4"	20x2	49.5	30
26 x G3/4"	26x3	49.5	30
26 x G1"	26x3	59	37
32 x G1"	32x3	59	37

Intermediate Tee joint LBP



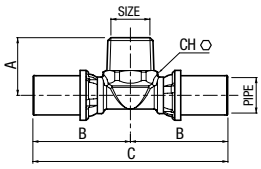
Size	Pipe	A mm	B mm
16 x 16 x 16	16x2	83.3	41.7
20 x 20 x 20	20x2	87.3	43.7
26 x 26 x 26	26x3	102.3	51.2
32 x 32 x 32	32x3	108.3	54.2

Intermediate Tee joint LBP with female branch



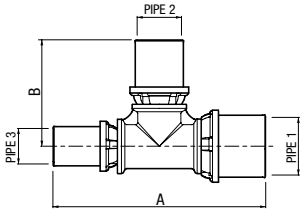
Size	Pipe	A mm	B mm	C mm	Ch mm
16 x Rp1/2" x 16	16x2	23.5	88	44	24
16 x Rp3/4" x 16	16x2	23.5	96	44	24
20 x Rp1/2" x 20	20x2	23.5	88	44	24
20 x Rp3/4" x 20	20x2	28	96	48	30
26 x Rp1/2" x 26	26x3	26.5	105	52.5	27
26 x Rp3/4" x 26	26x3	28	113	56.5	34
32 x Rp3/4" x 32	32x3	31	113	56.5	34
32 x Rp1" x 32	32x3	33	113	56.5	38

Intermediate Tee joint LBP with male branch



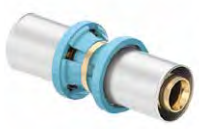
Size	Pipe	A mm	B mm	C mm	Ch mm
16 x R1/2" x 16	16x2	26	44	88	22
20 x R1/2" x 20	20x2	26	44	88	22
20 x R3/4" x 20	20x2	31.5	48	96	27
26 x R3/4" x 26	26x3	31.5	52.5	105	27

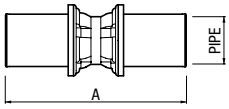
Intermediate reducing Tee joint LBP



Size	Pipe 1	Pipe 2	Pipe 3	A mm	B mm
16 x 20 x 16	16x2	20x2	16x2	87.3	43.7
20 x 16 x 16	20x2	16x2	16x2	87.3	43.7
20 x 16 x 20	20x2	16x2	20x2	87.3	43.7
20 x 20 x 16	20x2	20x2	16x2	87.3	43.7
20 x 26 x 20	20x2	26x3	20x2	93.3	51.2
20 x 32 x 20	20x2	32x3	20x2	101.3	54.2
26 x 16 x 20	26x3	16x2	20x2	97.8	46.7
26 x 16 x 26	26x3	16x2	26x3	102.3	46.7
26 x 20 x 16	26x3	20x2	16x2	97.8	46.7
26 x 20 x 20	26x3	20x2	20x2	97.8	46.7
26 x 20 x 26	26x3	20x2	26x3	102.3	46.7
26 x 26 x 16	26x3	26x3	16x2	97.8	51.2
26 x 26 x 20	26x3	26x3	20x2	97.8	51.2
26 x 32 x 26	26x3	32x3	26x3	108.3	54.2
32 x 16 x 32	32x3	16x2	32x3	108.3	50.7
32 x 20 x 20	32x3	20x2	20x2	103.8	49.7
32 x 20 x 26	32x3	20x2	26x3	108.3	50.7
32 x 20 x 32	32x3	20x2	32x3	108.3	50.7
32 x 26 x 20	32x3	26x3	20x2	103.8	54.2
32 x 26 x 26	32x3	26x3	26x3	108.3	54.2
32 x 26 x 32	32x3	26x3	32x3	108.3	54.2
32 x 32 x 16	32x3	32x3	16x2	104.8	54.2
32 x 32 x 20	32x3	32x3	20x2	103.8	54.2
32 x 32 x 26	32x3	32x3	26x3	108.3	54.2

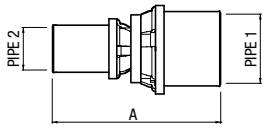
Straight intermediate union joint LBP





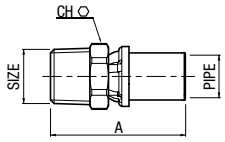
Size	Pipe	A mm
16 x 16	16x2	61
20 x 20	20x2	61
26 x 26	26x3	70
32 x 32	32x3	70

Straight intermediate reducing union joint LBP



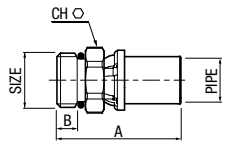
Size	Pipe 1	Pipe 2	A mm
20 x 16	20x2	16x2	61
26 x 16	26x3	16x2	65.5
26 x 20	26x3	20x2	65.5
32 x 16	32x3	16x2	65.5
32 x 20	32x3	20x2	65.5
32 x 26	32x3	26x3	70

Straight male union joint LBP



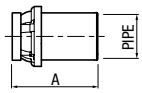
Size	Pipe	A mm	Ch mm
16 x R1/2"	16x2	50.8	22
16 x R3/4"	16x2	54.5	27
20 x R1/2"	20x2	50.8	22
20 x R3/4"	20x2	54.5	27
26 x R3/4"	26x3	59	27
26 x R1"	26x3	64	34
32 x R1"	32x3	64	34
32 x R1"1/4	32x3	70	46

Straight male union joint LBP with o-ring



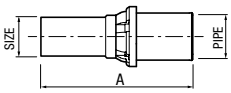
Size	Pipe	A mm	B mm	Ch mm
16 x G1/2"	16x2	43.5	6.5	24
20 x G1/2"	20x2	43.5	6.5	28

Plug LBP



Size	Pipe	A mm
16 x 2	16x2	31
20 x 2	20x2	31
26 x 3	26x3	36.5
32 x 3	32x3	36.5

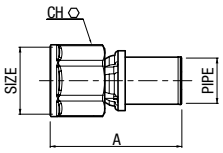
Adapter LBP copper/multi-layer



Ø Multilayer - Ø Copper	Pipe	A mm
16 x 2 - 15	16x2	53
20 x 2 - 18	20x2	54
20 x 2 - 22	20x2	62
26 x 3 - 22	26x3	66.5
32 x 3 - 28	32x3	68.5

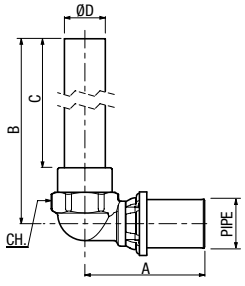
Compatibility with copper and bronze press fittings with V profile (KSP4)

Straight female union joint LBP



Size	Pipe	A mm	Ch mm
16 x Rp1/2"	16x2	49.5	24
20 x Rp1/2"	20x2	49.5	24
20 x Rp3/4"	20x2	52	30
26 x Rp3/4"	26x3	56.5	30
26 x Rp1"	26x3	60.5	38
32 x Rp1"	32x3	60.5	38

Right-angle elbow with copper pipe, chromed



Size	Pipe	A mm	B mm	C mm	ØD mm	Ch mm
16 x DN 15	16	44	165	144.5	15	22

Not suitable for sanitary installations

DVGW-Baumusterprüfzertifikat

DVGW type examination certificate

DW-8803DL0378
Registriernummer
registration number

Anwendungsbereich ***field of application***	Produkte der Wasserversorgung *products of water supply*
Vertreiber ***distributor***	EMMETI S.p.A. Via Brigata Osoppo, 166, I-33074 Vigonovo di Fontafredda (PN)
Produktart ***product category***	Installationssysteme mit speziellen Rohren (PN 10): Multilayer Rohrleitungssysteme für warmes und kaltes Trinkwasser innerhalb von Gebäuden (8803)
Produktbezeichnung ***product description***	Multilayer Rohrleitungssystem bestehend aus Pressverbindern aus Kunststoff (PPSU) oder Metall und Rohren aus PE-RT/Al/PE-RT
Modell ***model***	Alpert Radial Press System
Prüfberichte ***test reports***	Ergänzungsprüfung: V264/21.1 vom 10.12.2021 (IMA) Ergänzungsprüfung: V264/21.2 vom 10.12.2021 (IMA) Ergänzungsprüfung: V403/20.1 vom 04.03.2022 (IMA) Ergänzungsprüfung: V403/20.2 vom 04.03.2022 (IMA) Baumusterprüfung: V481/18.1 vom 23.12.2020 (IMA)
Prüfgrundlagen ***test basis***	DVGW CERT PEG -W001 (31.03.2021) DVGW CERT ZP 8803 (05.03.2018) DIN CEN ISO/TS 21003-7 (01.09.2019) UBA KTW-BWGL (09.03.2021) UBA Übergangsregelung KTW-BWGL (10.07.2020) DVGW W 270 (01.11.2007)
Ablaufdatum / AZ ***date of expiry / file no.***	25.03.2026 / 21-0545-WNA

70028-04-A-DE

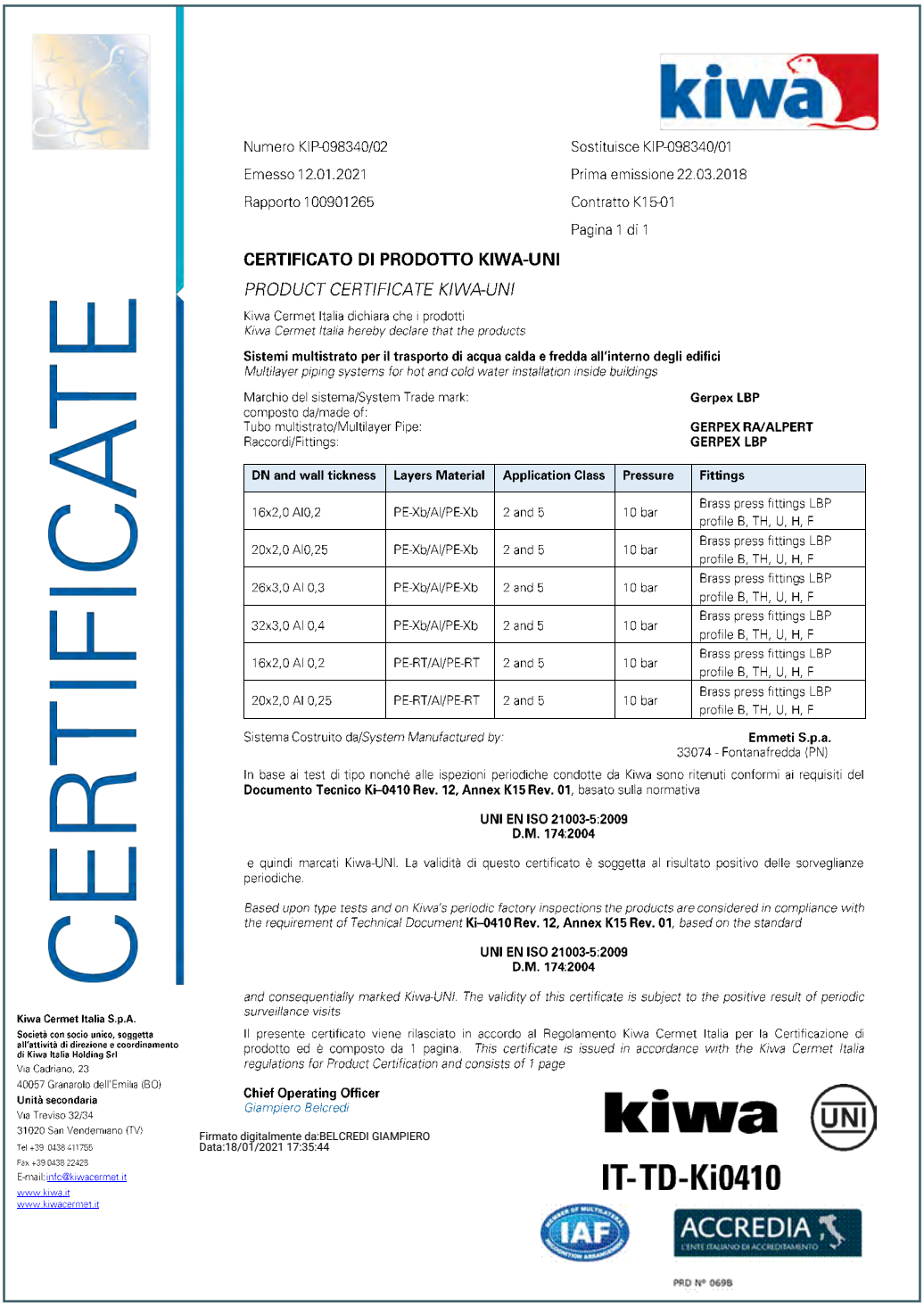
08.03.2022 GI B-1/2
Datum, Bearbeiter, Blatt, Leiter der Zertifizierungsstelle
date, issued by, sheet, head of certification body

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

KIWA certificate according UNI EN ISO 21003

System consisting of Gerpex RA multilayer pipes and Gerpex LBP press fittings



CERTIFICATE

Numero KIP-098340/02
Emesso 12.01.2021
Rapporto 100901265

Sostituisce KIP-098340/01
Prima emissione 22.03.2018
Contratto K15-01
Pagina 1 di 1

CERTIFICATO DI PRODOTTO KIWA-UNI

PRODUCT CERTIFICATE KIWA-UNI

Kiwa Cermet Italia dichiara che i prodotti
Kiwa Cermet Italia hereby declare that the products

Sistemi multistrato per il trasporto di acqua calda e fredda all'interno degli edifici
Multilayer piping systems for hot and cold water installation inside buildings

Marchio del sistema/System Trade mark: **Gerpex LBP**
composto da/made of:
Tubo multistrato/Multilayer Pipe: **GERPEX RA/ALPERT**
Raccordi/Fittings: **GERPEX LBP**

DN and wall tickness	Layers Material	Application Class	Pressure	Fittings
16x2,0 Al0,2	PE-Xb/Al/PE-Xb	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
20x2,0 Al0,25	PE-Xb/Al/PE-Xb	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
26x3,0 Al 0,3	PE-Xb/Al/PE-Xb	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
32x3,0 Al 0,4	PE-Xb/Al/PE-Xb	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
16x2,0 Al 0,2	PE-RT/Al/PE-RT	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
20x2,0 Al 0,25	PE-RT/Al/PE-RT	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F

Sistema Costruito da/*System Manufactured by:* **Emmeti S.p.a.**
33074 - Fontanafredda (PN)

In base ai test di tipo nonché alle ispezioni periodiche condotte da Kiwa sono ritenuti conformi ai requisiti del **Documento Tecnico Ki-0410 Rev. 12, Annex K15 Rev. 01**, basato sulla normativa

UNI EN ISO 21003-5:2009
D.M. 174:2004

e quindi marcati Kiwa-UNI. La validità di questo certificato è soggetta al risultato positivo delle sorveglianze periodiche.

Based upon type tests and on Kiwa's periodic factory inspections the products are considered in compliance with the requirement of Technical Document **Ki-0410 Rev. 12, Annex K15 Rev. 01**, *based on the standard*

UNI EN ISO 21003-5:2009
D.M. 174:2004

and consequentially marked Kiwa-UNI. The validity of this certificate is subject to the positive result of periodic surveillance visits

Il presente certificato viene rilasciato in accordo al Regolamento Kiwa Cermet Italia per la Certificazione di prodotto ed è composto da 1 pagina. *This certificate is issued in accordance with the Kiwa Cermet Italia regulations for Product Certification and consists of 1 page*

Chief Operating Officer
Giampiero Belcredi

Firmato digitalmente da:BELCREDI GIAMPIERO
Data:18/01/2021 17:35:44

IT-TD-Ki0410

PRD N° 0698

Kiwa Cermet Italia S.p.A.
Società con socio unico, soggetta all'attività di direzione e coordinamento di Kiwa Italia Holding Srl
Via Cadriano, 23
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31020 San Vendemiano (TV)
Tel +39 0438 411755
Fax +39 0438 22428
E-mail: info@kiwacermet.it
www.kiwa.it
www.kiwacermet.it

System consisting of Gerpex RA pipes and Gerpex LBP press fittings:

kiwa UNI sizes: Ø16, Ø20, Ø26, Ø32