

Evolution  
**NET.Fit**<sup>®</sup>

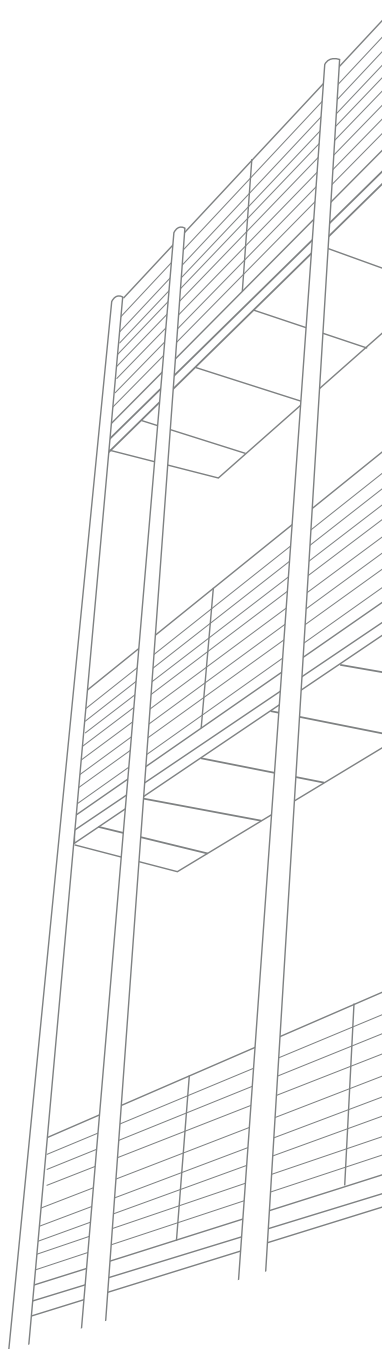


25  
anniversary

 **TierreGroup**<sup>®</sup>  
Unique vision







 **TierreGroup**®

 **TierreFittings**®

 **F-Line.PRO**

 **NET.Fit**

 **INOX.Fit**



Evolution  
**NET.Fit**<sup>®</sup>

**PLUS**

#### **FULLY PLASTIC CONSTRUCTION**

**SAFETY PRE-INSTALLED TAMPER-PROOF REUSABLE LOCKING CLIP** system, to prevent microducts being accidentally disconnected

**FULLY TRANSPARENT** (clear) body for ease of visual inspection to ensure the tube is inserted correctly

The union connectors have an internal profile design that allows them **NOT TO BE AFFECTED BY THE INTERNAL DIAMETER OF THE DUCT GUARANTEEING AN UN-OBSTRUCTED PASSAGE OF THE BLOWN FIBRES** without any obstacles

**DARK RUBBER COVER** available to prevent the ingress of foreign material and to protect from damage

**UV RESISTANT** when fitted with a dark rubber cover

**EASY CONNECTION & DISCONNECTION** of the duct thanks to the intelligent gripping system

**TESTED AGAINST RED SPIRIT**



*If It's Not Fiber, It's Not Broadband*



## PRODUCTS

Union Connectors



p. 7 / **EFXUC**

End Plugs



p. 7 / **EFXPF**

Reduced Union Connectors



p. 8 / **EFXG**

## ACCESSORIES

Rubber Covers



p. 8 / **EFXRC**

Metal tube cutter



p. 9 / **PZ-G**

Spare blade for  
PZ-G



p. 9 / **LM-G**

Plastic tube cutter



p. 9 / **TT16**



Evolution NET.Fit fittings and accessories have been designed by Terre Group in order to be used for FTtx applications. Evolution NET.Fit is manufactured in compliance with the EN 50411-2-8.

**Evolution NET.Fit products have been tested in order to simulate a 20-years lifetime.**



-20°C ÷ +50°C



**Working Pressure:**  
15 Bar  
**Short term blowing pressure (10''):**  
25 Bar  
**Burst pressure (all diameters):**  
accordingly to EN50411-2-8



Air



**Body:** Transparent HP Polymer  
**Cartridge:** Techno Polymer  
**Collet:** Techno Polymer  
**Seal:** NBR  
**Lock Claw:** Stainless Steel  
**Support Ring:** Techno Polymer  
**Rubber Cover:** Dark Silicon  
**Tamper-Proof Locking Clip:**  
Techno Polymer

**EN 50411-2-8:** Microduct connectors - specifications

- EN 61300-2-1: Vibration (sinusoidal)
- EN 61300-2-4: Microduct Retention
- EN 61300-2-37: Microduct Bending
- EN 61300-2-5: Torsion / Twist
- EN 61300-2-10: Crush Resistance
- EN 60794-1-2:2003, Method E4: Impact
- EN 61300-2-33: Re-entries
- EN 61300-2-22: Change of Temperature (cycling)
- EN 61300-2-23:1997, Method 2: Water Immersion
- EN 61300-2-26: Salt Mist
- EN 61300-2-34: Chemical Resistance
- EN 50411-2-8, Annex C: High Pressure Resistance (safety)
- EN 50411-2-8, Annex D: Installation Test
- EN 50411-2-8, Annex E: Insertion Force
- EN 60529: IP 68
- EN 61386-22: Glow wire test at 750°C
- EN 61386-24: Conduit systems buried underground

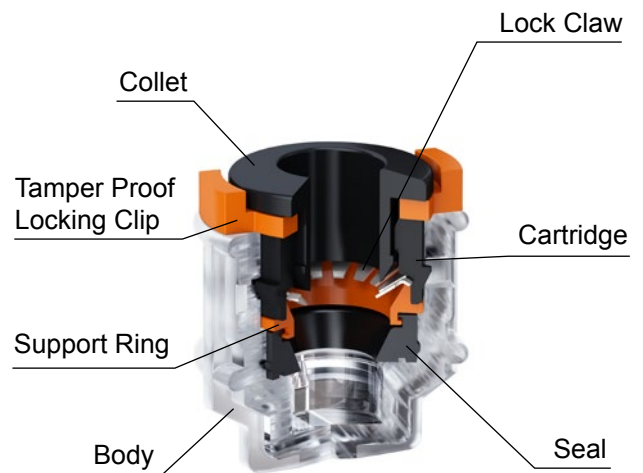
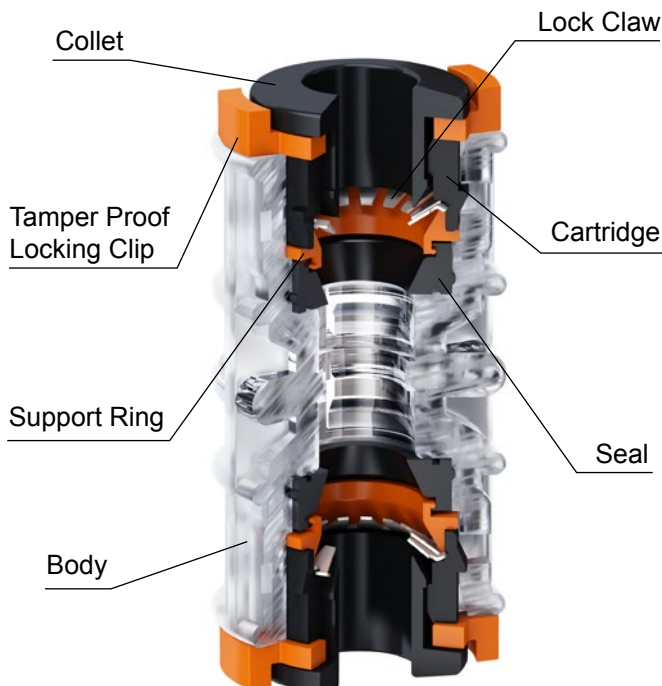


Products in compliance with the regulation EC 1907/2006



Products in compliance with the directive EU 2015/863

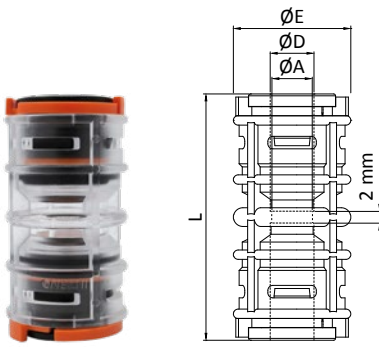
## CONSTRUCTION DETAILS





**EFXUC**

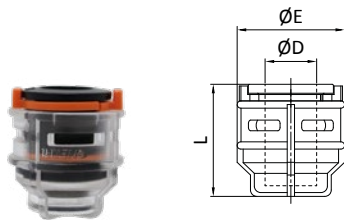
## Union Connectors



CODE	ØD (mm)	ØE (mm)	ØA (mm)	L (mm)	Q.TY
EFXUC03	3	14,0	2,5	33,0	100
EFXUC04	4	14,0	3,0	33,0	100
EFXUC05	5	16,8	4,3	35,2	100
EFXUC06	6	16,8	5,3	35,2	100
EFXUC07	7	18,8	6,1	39,1	100
EFXUC08	8	18,8	6,1	39,1	100
EFXUC8.5	8,5	19,3	7,0	39,6	100
EFXUC10	10	22,2	9,3	46,4	100
EFXUC12	12	25,0	11,0	49,2	100
EFXUC12.7	12,7	25,0	11,0	48,8	100
EFXUC14	14	26,7	13,0	50,2	100
EFXUC16	16	29,2	15,0	55,6	100
EFXUC18	18	32,0	17,0	59,1	50
EFXUC20	20	34,0	19,0	62,0	50
EFXUC25	25	41,2	24,0	71,0	50

**EFXPF**

## End Plugs

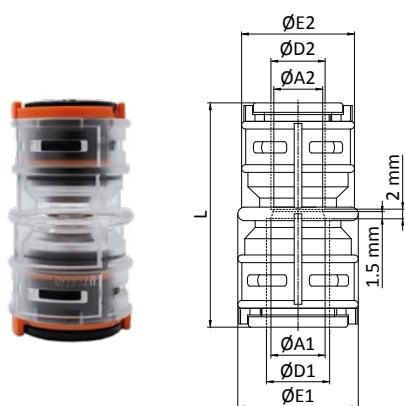


CODE	ØD (mm)	ØE (mm)	L (mm)	Q.TY
EFXPF03	3	14,0	18,3	100
EFXPF04	4	14,0	18,3	100
EFXPF05	5	16,8	19,5	100
EFXPF06	6	16,8	19,5	100
EFXPF07	7	18,8	21,5	100
EFXPF08	8	18,8	21,5	100
EFXPF8.5	8,5	19,3	21,5	100
EFXPF10	10	22,2	25,1	100
EFXPF12	12	25,0	26,3	100
EFXPF12.7	12,7	25,0	26,3	100
EFXPF14	14	26,7	27,0	100
EFXPF16	16	29,2	29,9	100
EFXPF18	18	32,0	31,5	50
EFXPF20	20	34,0	33,0	50
EFXPF25	25	41,2	37,5	50



**EFXG**

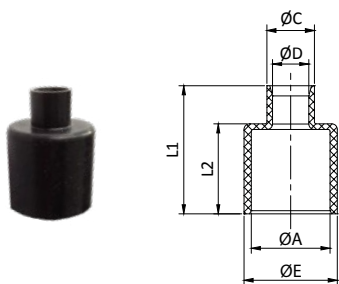
Reduced Union Connectors



CODE	ØD1 (mm)	ØD2 (mm)	ØE1 (mm)	ØE2 (mm)	ØA1 (mm)	ØA2 (mm)	L (mm)	Q.TY
EFXG0704	7	4	18,8	14,0	6,1	3,0	36,2	100
EFXG0705	7	5	18,8	16,8	6,1	4,3	37,4	100
EFXG0706	7	6	18,8	16,8	6,1	5,3	37,4	100
EFXG0805	8	5	18,8	16,8	6,1	4,3	37,4	100
EFXG0806	8	6	18,8	16,8	6,1	5,3	37,4	100
EFXG0807	8	7	18,8	18,8	6,1	6,1	39,1	100
EFXG1007	10	7	22,2	18,8	9,3	6,1	43,0	100
EFXG1008	10	8	22,2	18,8	9,3	6,1	43,0	100
EFXG1207	12	7	25,0	18,8	11,0	6,1	44,2	100
EFXG1208	12	8	25,0	18,8	11,0	6,1	44,2	100
EFXG1210	12	10	25,0	22,2	11,0	9,3	47,6	100
EFXG1407	14	7	26,7	18,8	12,0	6,1	45,1	100
EFXG1408	14	8	26,7	18,8	12,0	6,1	45,1	100
EFXG1410	14	10	26,7	22,2	12,0	9,3	48,3	100
EFXG1412	14	12	26,7	25,0	12,0	11,0	49,7	100
EFXG1612	16	12	29,2	25,0	15,0	11,0	52,3	100
EFXG1614	16	14	29,2	26,7	15,0	13,0	53,1	100
EFXG1814	18	14	32,0	26,7	16,0	12,0	54,4	100
EFXG2014	20	14	34,0	26,7	19,0	13,0	56,3	50
EFXG2016	20	16	34,0	29,2	19,0	15,0	59,1	50

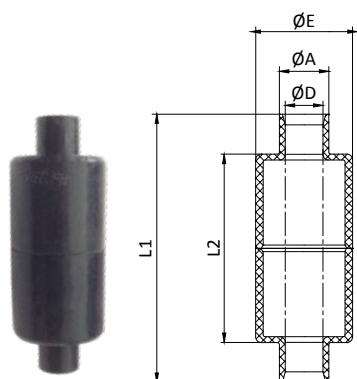
**EFXRC**

Rubber Covers



CODE	ØD (mm)	ØA (mm)	ØE (mm)	ØC (mm)	L1 (mm)	L2 (mm)	Q.TY
EFXRC03/04	3,0	14,3	18,3	6,1	22,6	18,1	100
EFXRC05/06	5,0	16,3	20,3	8,1	25,7	19,2	100
EFXRC07/08	7,0	18,3	22,3	10,1	29,6	21,1	100
EFXRC10	10,0	21,7	25,7	13,1	35,3	24,8	100
EFXRC12	12,0	24,5	28,5	15,1	38,7	26,2	100
EFXRC14	14,0	26,2	30,2	17,1	41,2	26,7	100

Dimensions for union connectors with dark rubber cover mounted



CODE	ØD (mm)	ØA (mm)	ØE (mm)	L1 (mm)	L2 (mm)
EFXRC03/04	3,0	6,1	18,3	45,2	36,2
EFXRC05/06	5,0	8,1	20,3	51,4	38,4
EFXRC07/08	7,0	10,1	22,3	59,2	42,2
EFXRC10	10,0	13,1	25,7	70,6	49,6
EFXRC12	12,0	15,1	28,5	77,4	52,4
EFXRC14	14,0	17,1	30,2	82,4	53,4



**PZ-G**

Metal tube cutter



CODE	MAX Ø (mm)	BLADE	Q.TY
PZ-G	28	Steel	1

**LM-G**

Spare blade for PZ-G



CODE	Q.TY
LM-G	1

**TT16**

Plastic tube cutter

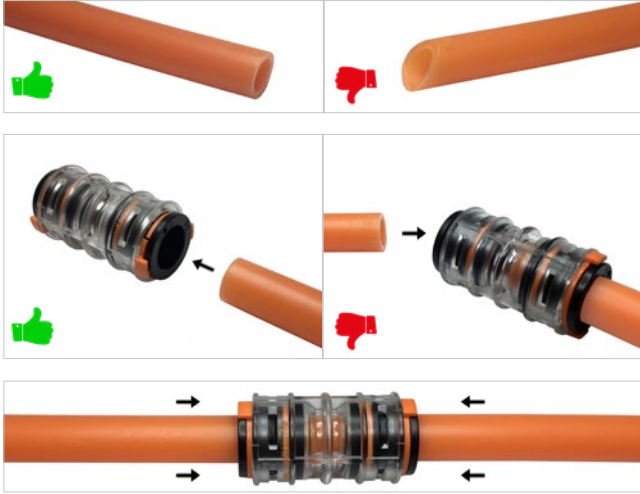


CODE	MAX Ø (mm)	Q.TY
TT16	16	1



## ASSEMBLY INSTRUCTIONS

We recommend the installer to read and follow all the instructions, precautions and warnings contained in this document before using the products in pressurized systems. Failure to follow all instructions, precautions and warnings may result in bodily harm or property damage. Tierre Group disclaims any responsibility in the case of damage for mis-use of the products.



Make sure that the Microduct external size and the push-in system size of the Connector are the same. Check the external diameter of the Microduct (maximum allowed tolerance +/- 0,1mm). The part of the Microduct that has to be inserted into the Connector must be round. The Microduct must be cut square (90° angle) for the part that has to be inserted into the Connector, and using the correct tube cutter (PZ-G or TT-16). When necessary, deburr and break off sharp edges of the Microduct end to be inserted into the Connector using the correct tool. Make sure that the Microduct used is clean and does not contain any scratches, cracks, cuts or deformities on its surface. Avoid the inlet of foreign material into the Connector and/or Microduct before and during the installation. Always insert the Microduct correctly aligned with the Connector, to ensure the correct assembly.



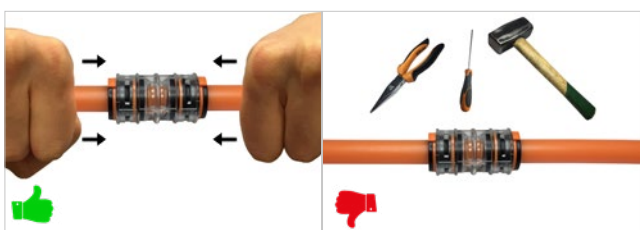
Make sure that the Microduct is correctly and fully inserted. The transparent body of the Connector allows a visual inspection of the correct and full insertion of the Microduct. The insertion of the Microduct into the Connector requires a moderate force. The Microduct and the Connector seal should not be scratched or damaged during the insertion, otherwise there may be leaks or further mis-functioning. Please, connect the Microduct by hand, without using any kind of tool.



To make sure that the Microduct is properly connected to the Connector, please pull it once slightly, without releasing the collet.

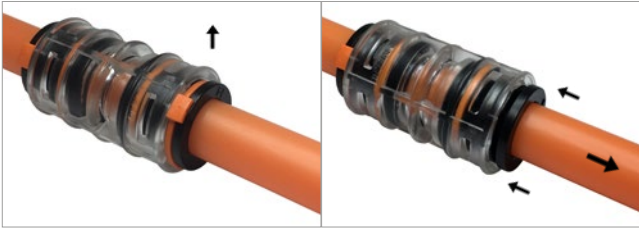


The Evolution NET.Fit products are pre-fitted with tamper proof locking clips as standard. If they have been removed, please replace with the correct locking clip after connecting the Microduct. The insertion of the locking clip between the Connector main body and the collet avoids any possible Microduct accidental disconnection.



All the connection and disconnection operations, including the locking clip installation and removal, have to be performed manually without the use of any kind of tools to prevent damage.





In order to disconnect the Microduct from the Connector, make sure that the pressure has been completely eliminated from the system before any operation.

Remove the locking clip first (if it is the first time the locking clip is removed, a small part of it will be broken in order to identify the removal), then push the collet in the direction of the body of the Connector and pull the Microduct keeping the collet pushed against the Connector body in order to disconnect the Microduct.

To avoid any possible problem during the blowing process, the Connectors have to be installed in straight sections. The Connectors must not be installed in a Microduct that is on a tight bend radius.

Evolution NET.Fit Connectors can be reused providing that they are not damaged and correctly working. It is possible to reuse them, but only in case of maintenance. The reuse must be verified and the correct functioning of the whole system has to be carefully checked by the operator. In the case of reuse of a Microduct, the part previously inserted into the Connector has to be cut back and the whole line has to be re-verified. It is necessary to follow all the instructions as a precautions, in the same way as the first insertion of the Microduct.

In case of use with lubricants, it is responsibility of the user/customer to previously check the chemical compatibility of the fluid with the construction materials of the Connector. Please, contact our technical department if you would like to receive information regarding suggested lubricants.

Do not disassemble or modify the individual products as this may cause product malfunctions, leaks or failure. In any case the tampering, modification or dismantling of the products invalidates the guarantee.

Do not over-stress the products by rotation, twist, bending, shock, fatigue or other excessive forces. This may damage the fittings and cause malfunctions, leaks or failure. The performance limits of the Connectors are detailed in the Evolution NET.Fit catalogues and must be respected during the installation. Do not use the products where ambient temperature and/or fluid temperature and pressure may exceed the limits indicated in our catalogue.

Never press collets towards the body unless you need to separate the Microducts from the Connector in an unpressurized line. Please, follow the instructions above.

Tierre Group reserves the right to modify the products from time to time when required by quality improvements and by market requirements. The actual product may differ from the pictures and drawings shown in the catalogues.

We recommend to only use Evolution Net.Fit accessories when assembling Connectors. Using non recommended products could invalidate the guarantee. The customer is responsible for checking the performance of the products after the installation.

While connecting the Microduct, please make sure that it is correctly inserted into the Connector seat. Please, note that the Microduct may be gripped even if it is not completely inserted into the seat. A Microduct that is not fully inserted may cause failures and leakages. In this case push the Microduct further into the Connector in order to be certain that it is completely inserted and check visually that it is in the correct position.

It is responsibility of the user to keep the correct traceability of the product. The production code of the items is clearly indicated on the packaging. In the case of a claim, the correct production code must be communicated to Tierre Group. The failure to communicate the production code will invalidate the guarantee.





Tierre Group S.p.a.  
Headquarter: Via Dell'Industria 18 – 20032 Cormano (MI) – Italy  
Warehouse: Via Dell'Artigianato 2 – 20032 Cormano (MI) – Italy  
Production: Via Marco Biagi 1 – 25045 Castegnato (BS) – Italy  
C.F. e P.IVA IT 12437570158 – Capital €120.000,00  
REA MI-1558390



Phone. +39 02 663088.1 – Fax +39 02 66304172  
www.tierregroup.com – info@tierregroup.com

## COMPLIANCE DECLARATION

Tierre Group S.p.a. hereby declares that the following items:



In the following series:

Union Connectors EFXUC  
End Plugs EFXPF  
Reduced Union Connectors EFXG

### ARE IN COMPLIANCE WITH

#### EN 50411-2-8

Fibre organisers and closures to be used  
in optical fibre communication systems -  
Product specifications -

Part 2-8: Microduct connectors, for air blown optical fibres, Type 1

The items have been tested accordingly to the following standards:

- EN 61300-2-1: Vibration (sinusoidal)
- EN 61300-2-4: Microduct Retention
- EN 61300-2-37: Microduct Bending
- EN 61300-2-5: Torsion/Twist
- EN 61300-2-10: Crusch Resistance
- EN 60794-1-2:2003, Method E4: Impact
- EN 61300-2-33: Re.entries
- EN 61300-2-22: Change of Temperature (Cycling)
- EN 61300-2-23:1997, Method 2: Water Immersion
- EN 61300-2-26: Salt Mist
- EN 61300-2-34: Chemical Resistance
- EN 50411-2-8, Annex C: High Pressure Resistance (safety)
- EN 50411-2-8, Annex D: Installation Test
- EN 50411-2-8, Annex E: Insertion Force

Cormano, 27th July 2021



TIERRE GROUP S.p.a.

Dott. Marco Regis



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### DEGREE OF PROTECTION DECLARATION

Tierre Group S.p.a. hereby declares that the following items:



In the following series:

Union Connectors EFXUC  
End Plugs EFXPF  
Reduced Union Connectors EFXG

Have been tested accordingly to the following standard:

**EN 60529**

Degrees of protection provided by enclosures (IP Code)

And PASSED all the tests in order to obtain the following degree of protection:

**IP 68**

Cormano, 30th July 2021



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www.tierregroup.com – info@tierregroup.com

### FIRE RESISTANCE DECLARATION

Tierre Group S.p.a. hereby declares that the following items:



In the following series:

- Union Connectors EFXUC
- End Plugs EFXPF
- Reduced Union Connectors EFXG

Have been tested accordingly to the following standard:

#### EN 61386-22

Conduit systems for cable management  
Part 22: Particular requirements - Pliable conduit systems

And PASSED the

**glow-wire tests carried out at 750°C**

Cormano, 27th July 2021



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REA MI-1558390



Phone. +39 02 663088.1 – Fax +39 02 66304172  
www.tierregroup.com – info@tierregroup.com

## IMPACT RESISTANCE DECLARATION

Tierre Group S.p.a. hereby declares that the following items:



In the following series:

Union Connectors EFXUC  
End Plugs EFXPF  
Reduced Union Connectors EFXG

Have been tested accordingly to the following standard:

### EN 61386-24

Conduit systems for cable management  
Part 24: Particular requirements – Conduit systems buried underground

And PASSED the

### IMPACT TEST

performed in accordance with IEC 61386-24:2004 (1st Edition) used in conjunction with IEC 61386-1:2008 (2nd Edition)

Cormano, 30th July 2021



TIERRE GROUP S.p.a.

Dott. Marco Regis





[www.net-fit.it](http://www.net-fit.it) [info@net-fit.it](mailto:info@net-fit.it)





**Tierre Group S.p.a.**

via dell'Industria, 18 - 20032 Cormano (MI)

Tel. +39 02 663088.1 - Fax +39 02 66304172

[www.tierregroup.com](http://www.tierregroup.com) - [info@tierregroup.com](mailto:info@tierregroup.com)

C.F. e P.IVA 12437570158

Cap. Soc. Euro 120.000,00 i.v. - REA MI-1558390

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