elydan

DRINKING WATER, INDUSTRY AND SANITATION

TABLE OF CONTENTS

Introduction 4

1. Construction site cases: examples of installation techniques 10

1. Installation by progressive laying in open trench 10
2. Installation by progressive laying in open trench without sand coating 11
3. Installation with a trencher without sand coating 12
4. Installation without trenches, rehabilitation by swage lining 13
5. Installation in open trench without sand coating 14
6. Large DN/OD and trenchless techniques 15

2. Drinking Water Supply 16

Our ranges of pipes for drinking water networks 16
Product information sheets 20

3. Sanitation & Industry 32

Our ranges of pipes for sewer and industry networks 32
Product information sheets 34

4. PE100 42

The sustainable preservation of water resources, a central challenge on a global scale

2.2 billion people
worldwide still do not have access to safely managed drinking water services

it's **27,5 %**
of the global population

That's 1 person out of 4

≈30 %
of the water distributed is lost each year in global distribution networks

It's **≈126 billion m³**
per year

Sources:
United Nations and World Health Organization (WHO)

KEY FIGURES OF THE DRINKING WATER NETWORKS AROUND THE WORLD

With aging water networks and the growing impact of droughts, leak reduction has become a critical challenge for everyone involved in delivering safe drinking water.

KEY FIGURES ON SEWER NETWORKS

As a vital part of the water cycle, the efficiency of wastewater networks is crucial for protecting public health and safeguarding biodiversity.

3.5 billion people
live without safely managed sanitation services

It's **44%**
of the total population

Sources : United Nations and World Health Organization (WHO)

Leak reduction, water quality protection, and climate adaptation are essential.

Elydan polyethylene networks rise to meet these key 21st-century challenges.

The advantages of PE100 pipes

A responsible solution with a carbon footprint up to 5 times lower than traditional materials

Low carbon footprint

Production

local production
5 factories
in France

Low energy manufacturing
220°C
Manufacturing temperature

Transportation

Optimized loadings
4 km
in DN/OD 90 on a single truck

Optimized loadings
2,2 km
in DN/OD 160 on a single truck

Implementation and Operation

Reduction of maintenance operations
Durable waterproofing and lifespan
> 100 years

End of life

100%
recyclable material
is part of a circular economy approach

RÉPUBLIQUE FRANÇAISE
Liberté Égalité Fraternité

ADEME
AGENCE DE LA TRANSITION ÉCOLOGIQUE

A HIGH-PERFORMANCE SOLUTION,
which increases network efficiency

Insensitive to corrosion
- Does not require any protective device, even in the presence of stray currents
- Suitable for all types of soil, even damp or corrosiv

Low roughness coefficient
- Limits the risk of obstruction of the pipe
- Reduces network pressure losses

Viscoelastic behavior
- Résist movements of grounds, without risk of rupture
- Absorbs the effects of a water hammer (overpressure divided up to 3X compared to a cast iron network)

Chemical and biological inertia
Preserves water quality

Available in long lengths
Reduces the number of joints between pipes

Weldable
- Self-restrained solution, without risk of dislodging
- Long-lasting watertightness, without any joints

Minimum service life of 100 years
Long network life

A MODERN SOLUTION,
which increases productivity and safety on projects.

Naturally adapts to the the trench layout
Bending radius up to 20 times the outer diameter of the pipe

Easy to transport and handle
On average 3 times lighter than cast iron

Enables high installation rates
Up to 1700 meters of pipe on a reel

Saves on concrete thrust blocks or locking joints
self-anchored solutions

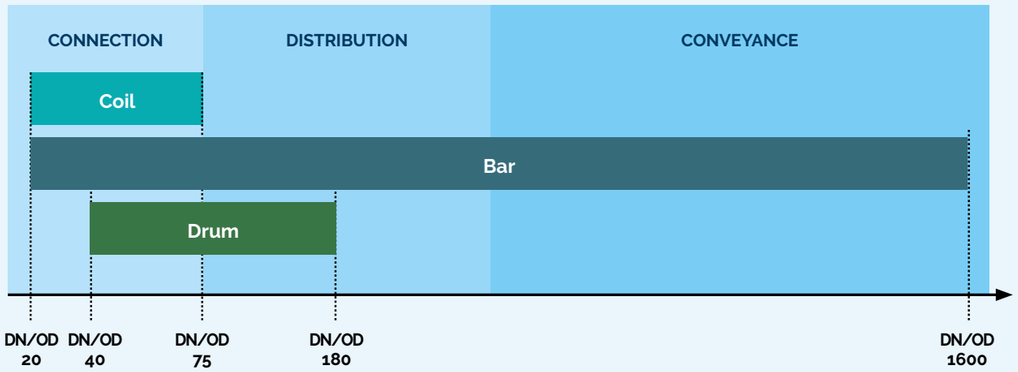
Packaging and implementation

A wide range of technical solutions and packaging

To adapt to the configuration of each site

The range
- Diameter : DN/OD 20 to DN/OD 1600 mm
- Pressure : PN 10 to PN25

Conditionnements
- Coils of 15, 25, 50 and 100 m
- Bars of 6 and 12 m (14 and 18 m: on request)
- Drums from 300 m to 1700 m depending on the diameters



COIL
Ideal for connections
- Can be carried by hand
- Easy to transport

BAR
Ideal for urban works
- Small footprint
- Installation with trench shoring

DRUM
Ideal for interconnection work
- Long length (300 to 1700 m)
- Quick to set up
- Fewer junctions
- Can be laid with a trencher

Connection techniques
flawless reliability and tightness

Choosing the connection method:
A KEY ROLE FOR THE DURABILITY OF NETWORKS

Welding is the preferred method for connecting HDPE* pipes. It ensures a complete fusion of the material and gives at each joint the same mechanical characteristics as the pipe, guaranteeing a durable seal over time.

*HDPE: High-Density Polyethylene

ELECTROFUSION
DN/OD 20 TO 1000

BUTT FUSION
DN/OD 63 TO 1000

JOINT
DN/OD 90 TO 250

ELYDAN'S +
The ELYSPRINT offer, with locked-fit connection, is particularly suited to the constraints of drinking water distribution sites in urban areas.

Construction site cases: **examples of installation techniques**

1 | Installation by progressive laying in open trench

Product: Polybleu
Dimensional: DN/OD 630 PN16
Packaging: Bar 6 m

The construction site
Installation of a drinking water pipe on the municipality of Epagny (74 - France)

The actors
Project owner: Grand Annecy
Company: Socco

The stages of the project
1. Opening the trench
2. Laying the pipes in trench bottom, and connection by electroweldable fittings
3. Backfilling the trench with added materials

Why Polybleu ?

- Work in an urban area
- The need to backfill the trench every night to allow vehicle traffic during the day
- A material that is not affected by damp or corrosive terrains, particularly suitable in this construction site configuration in a peat environment

2 | Installation by progressive laying in open trench without sand coating

Product: TEC 1 drinking water
Dimensional: DN/OD 180 PN16
Packaging: 300 m drum

The construction site
Drinking water supply interconnection between the municipalities of Hohwiller and Reimerswiller (67 - France)

The actors
Project owner: Water syndicate from Soultz-Sous-Forêts
Company: Eurovia

The stages of the project
1. Opening the trench
2. Drums unwinding on delivery (Elydan service)
3. Placing the pipe at the bottom of trench and connection by electrofusion fittings
4. Reuse of excavated material for trench filling

Why TEC 1 drinking water?

- Work in rural areas
- The great flexibility, the reduced number of joints, and the environmental sobriety of the solution
- Very fast execution: only 4 weeks for the installation of 1,350 meters of pipes

Construction site cases: **examples of installation techniques**

3 | Laying with a trencher, without sand coating

Product: TEC 1 drinking water
Dimensional: DN/OD 180 PN16
Packaging: 300 m drum

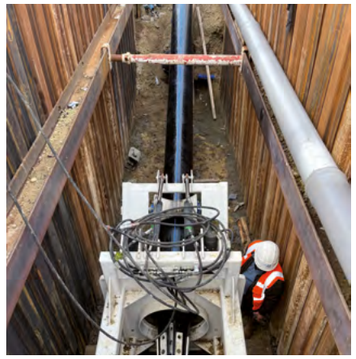
The construction site
Drinking water supply interconnection between the municipalities of Champenoux and Mazerulles (54 - France)

The actors
Project owner: Seille and Grand Intercommunal Community
Company: Sogea Environnement

The stages of the project
1. Unwinding the drums on the road shoulder
2. Connection by mirror welding of 2.21 km of pipe
3. Installation of the pipe using a trencher enabling simultaneous trench opening and pipe laying
4. Reuse of excavated material for trench filling

Why use a long length?
- Work in rural areas
- A duration of work divided by 4 on this site configuration compared to a solution using traditional interlocking material
- A more economical global solution

4 | Laying without trenches, rehabilitation by swage lining



Product: TEC 1 drinking water
Dimensional: DN/OD 400 PN10
Packaging: 12 m bar

The construction site
Rehabilitation of a drinking water supply pipeline in the Groslay community (95 - France)

The actors
Project owner: SEDIF
Company : Sade Special Works

The stages of the project
1. Excavation of entry and exit shafts for each shot to be carried out
2. Preparation of the pipeline to be rehabilitated (cleaning, scraping, visual inspection, etc.)
3. Butt welding of the pipes together over the entire required length
4. Pulling the pipe inside the pipe to be rehabilitated

Why use casing?
- Work in urban areas
- Nuisances for users reduced to a minimum thanks to trenchless installation
- The elasticity and shape memory of HDPE, necessary for this type of installation

Construction site cases: **examples of installation techniques**

5 Laying in open trench without sand coating

Product: TEC 3 drinking water
Dimensional: DN/OD 160 and 110 PN16
Packaging: 260 and 350 m drums

The construction site
Renewal of drinking water pipes between Chitry and Saint-Bris-le-Vineux (89 - France)

The actors
Project owner: Community of the Agglomeration of Auxerre (89)
Company: PETAVIT (69)

The stages of the project
1. Operations on dirt roads between the hard-to-access vineyards
2. Installation of the pipeline using a trencher, allowing the simultaneous action of opening the trench and pipe laying
3. Connection of the pipes by electrofusion fittings after peeling the ends
4. Reuse of excavated material for trench filling

Why TEC 3 drinking water?
- Material resistant to the reuse of excavated material in-situ, including sharp fragments, made mandatory to preserve vineyard terroir
- A duration of work divided by 4 on this site configuration compared to a solution using traditional interlocking material
- A more economical global solution

6 Large DN/OD and trenchless techniques

Our products can be available in large diameters

Why large diameters?
- Meet the needs of large urban areas
- Packaged in long lengths, making them quick to install

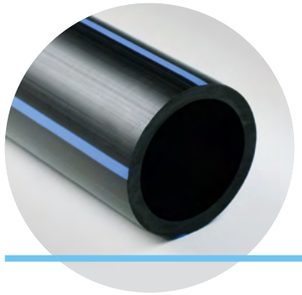
Your construction site will be here **soon !**

By choosing our solutions, you don't build only solid pipes, you enter our next brochure, the one that highlights our partners exemplary achievements.

Our products can be installed using the trenchless installation technique

Why materials compatible with trenchless installations?
- Time saving on construction site: partial opening of the roadway
- Ideal for urban work and risk areas
- More economical solution

Our ranges of pipes **for drinking water networks**

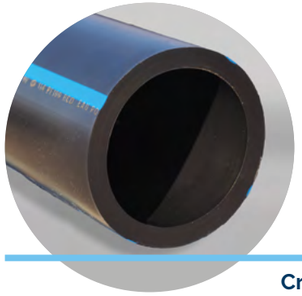


Polybleu

Solution corresponding to the vast majority of use cases

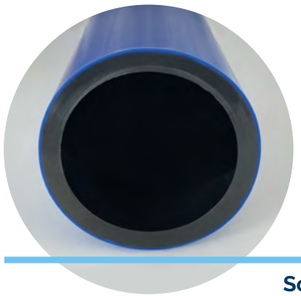
Elysprint

Interlocking solution for implementation in difficult environments (trench shoring, presence of groundwater, etc.)



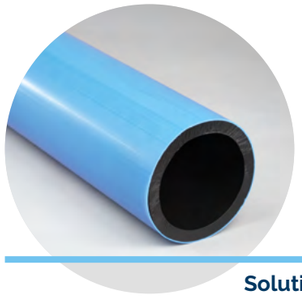
TEC 1 drinking water

Crack resistant and disinfectant-resistant solution, implemented without sand coating



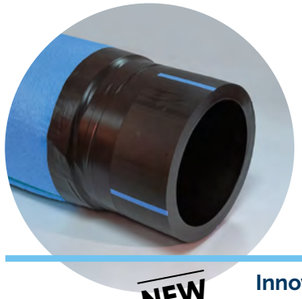
TEC 2 drinking water

Solution combining the advantages of TEC 1 drinking water with a 10% thick colored "control" outer layer



TEC 3 drinking water

Solution combining the advantages of TEC 1 drinking water with a reinforced external skin for trenchless installation

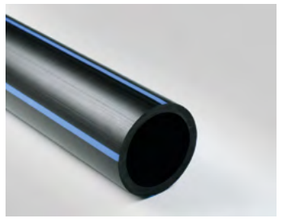


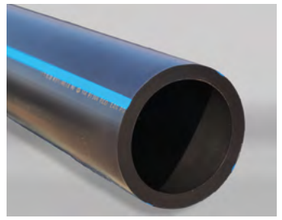
NEW

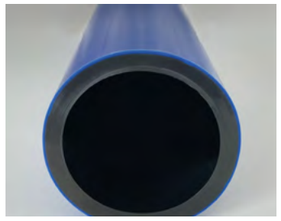
TEC 4 drinking water

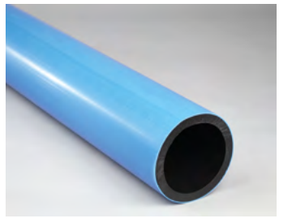
Innovative solution for installation with excavated material in place, including sharp edges

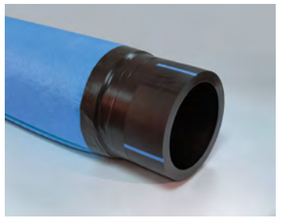
Our ranges of pipes
for drinking water networks









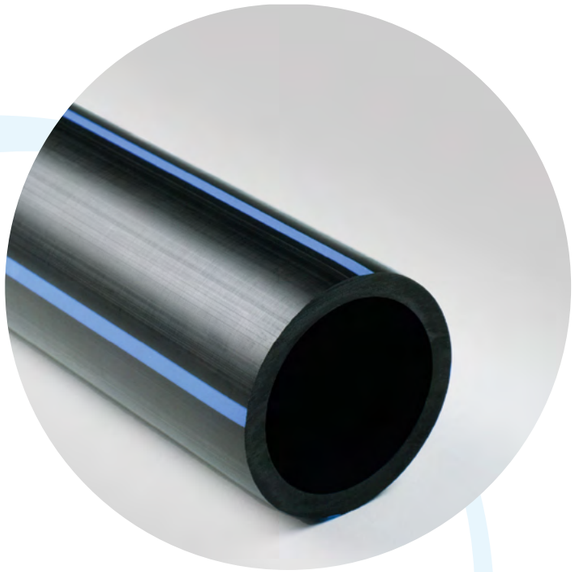


PRODUCT	PE100	Interlocking pipe	PE100-RCD	Dual layer 9010	PE100-RCD coated w/PP	PE100-RCD wrapped
Product name	**POLYBLEU**	**Elysprint**	**TEC 1 drinking water**	**TEC 2 drinking water**	**TEC 3 drinking water**	**TEC 4 drinking water**
Material	PE100	PE100 (pipe and socket)	PE100-RCD	PE100-RCBlack+PE100-RCBlue	PE100-RCD + PP (ext)	PE100-RCD + Géotextile
Visual characteristics	Black with blue stripes	Black with blue stripes	Black with blue stripes	Blue	Blue	Blue
Certification	Brand NF114 - Gr2 NF	Brand NF114 - Gr2 (pipe) NF	Brand NF114 - Gr2 NF	-	Internal pipe NF114 NF	Internal pipe NF114 NF
Standard	NF EN 12201-2	NF EN 12201-2	NF EN 12201-2	NF EN 12201-2	NF EN 12201-2	NF EN 12201-2
Health Compliance	✔	✔	✔	✔	✔	✔
Made in France	✔	✔	✔	✔	✔	✔
Available diameters	20 mm to 1600 mm	90 mm to 250 mm	20 mm to 1600 mm	25 mm to 1000 mm	25 mm to 1000 mm	125 mm and 160 mm
Packaging						
Coil	✔		✔	✔	✔	
Bar	✔	✔	✔	✔	✔	
Drum	✔		✔	✔	✔	✔
Installation: Open trench	✔	✔	✔	✔	✔	✔
Installation: Trenchless			✔	✔	✔	
Operating conditions	Normals	Normals	Severe	Severe	Severe	Severe
Coating / implementation	With sand coating	With sand coating	Without sand coating excavated material in place	Without sand coating excavated material in place	Without sand coating, excavated material in place, incl. sharp edges	Without sand coating, excavated material in place, incl. sharp edges
Nominal pressure (PN-bars)	10 to 25 bars	10 to 16 bars	10 to 25 bars	10 and 16 bars	10 to 25 bars	10 to 25 bars
Resistance to disinfectants	✔	✔	✔✔	✔✔	✔✔	✔✔
Punching resistance	✔	✔	✔✔	✔✔	✔✔	✔✔
Reduction of the environmental impact of the construction site	✔	✔	✔✔	✔✔	✔✔	✔✔
Kg Eq.CO^2 (functional unit = kg)*						
DN/OD 20 to 225 mm	2.25	PE pipe : 2,25	2.25	2.25	2.25	PE pipe: 2,25
DN/OD 250 to 355 mm	2.19	PE pipe : 2,19	2,19	2,19	2,19	PE pipe: 2,19
DN/OD 450 to 1600 mm	2.08	PE pipe : 2,08	2,08	2,08	2,08	
Bio-Circular material option with ISCC+** certification	✔	✔	✔		✔	✔
Recyclability	✔	✔	✔	✔	✔	✔
100 years lifespan	✔	✔	✔	✔	✔	✔
Detectable pipe option					✔	✔

* based on the STRPEPP FDES Environmental and Health Declaration Sheet
** material of non-fossil origin made from organic waste (wood, cooking oils, etc.)

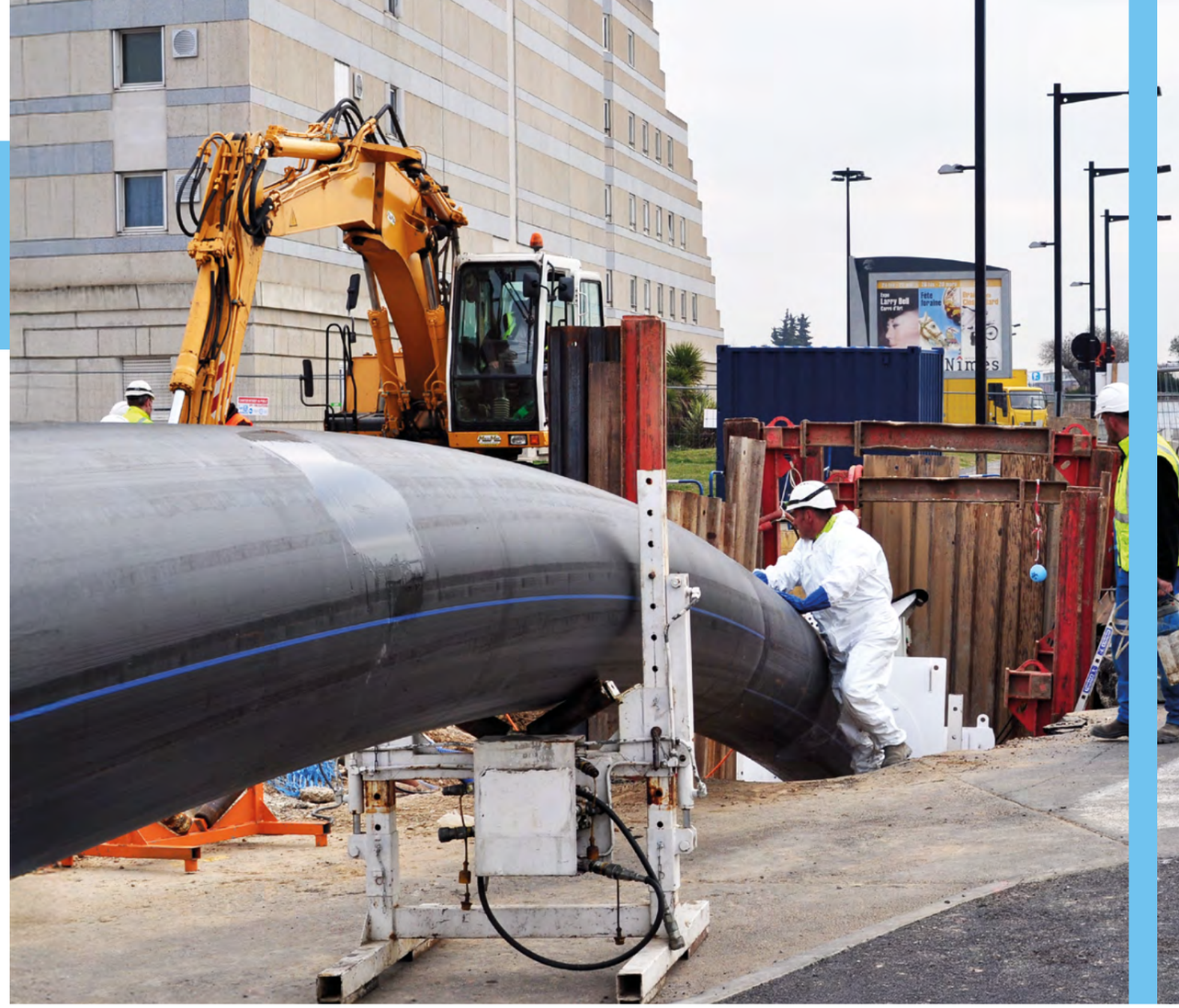
Product information sheet

POLYBLEU



PE100 polyethylene pipe, black with blue stripes, white marking.
POLYBLEU PE100 pipes are suitable for the vast majority of water supply projects, for drinking water distribution and connection.

Material: HDPE PE100
Available diameters: 20 to 1600 mm
Operating pressure: PN10 to PN25
Certifications: NF114 Brand – Group 2
Standard NF EN 12201
Sanitary Conformity Certificate (ACS)



Connection and implementation

- Polybleu PE100 pipes are suitable for traditional open trench laying techniques, as well as certain alternative methods: mechanized trenching, sliplining into existing pipes, etc. for new construction, network renewal or rehabilitation.
- Polybleu PE100 pipes can be assembled by welding using the electrofusion technique (electrofusion fitting) or the fusion welding technique.
- These connection techniques render the network self-supporting and save on concrete stops or locking systems at directional changes.
- When installing underground, Polybleu PE100 pipes must be laid with a sand coating. They can withstand surface scratches up to 10% of their maximum thickness. The use of a blue warning mesh is recommended.
- Polybleu PE100 pipes can also be laid above ground.

100% RECYCLABLE

Contact us for more information.

Benefits

- Advantages of PE100
- Cracking resistance
- Insensitivity to corrosion
- Respect for the neutral flavor of water
- Low roughness coefficient, little pressure loss
- Recyclable material that preserves the environment
- Impact and UV resistance
- Abrasion resistance
- Resistance to ground movements
- Lightness facilitating implementation
- Adapts to difficult routes

ELYDAN'S +
Pre-sheathed version Ø25

- **Time-saving during installation**
- **Ease of installation**

50 years
50 YEAR WARRANTY

SANITARY CONFORMITY CERTIFICATE (ACS)

MADE IN FRANCE

NF
TUBES EN POLYETHYLENE

Product information sheet

ELYSPRINT

Polybleu PE100 pipe with interlocking socket

ELYSPRINT is a complete system of PE100 pipe system, specially designed to adapt to the constraints of construction sites in difficult environments.

Material: HDPE PE100
Available diameters: 90 to 250 mm
Length: 6 m (12 m on request)
Operating pressure: PN16
Certifications : Pipe certified to the NF114 brand - Group 2.
Standard NF EN 12201
Sanitary Conformity Certificate (ACS)

Connection and implementation

- ELYSPRINT will be particularly recommended in urban areas or in the case of construction site constraints making welding connection unsuitable (bad weather, presence of groundwater, confined construction sites, etc.).
- Its interlocking connection allows installation without specific tools, like traditional materials.
- The integrated locking ring prevents disconnection during network operation.

Benefits

- Advantages of PE100
- Speed of implementation
- Installation in all conditions

ELYSPRINT'S +

- Push-fit connection
- Integrated locking ring
- Factory prepared end (chamfer, insertion indicator)

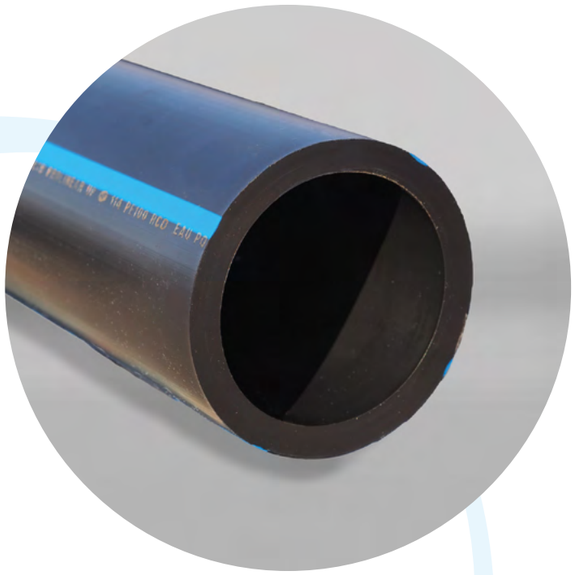
SANITARY CONFORMITY CERTIFICATE (ACS)

MADE IN FRANCE

NF TUBES EN POLYETHYLENE

Product information sheet

TEC 1 drinking water



PE100-RCD polyethylene pipe, black with blue stripes, golden marking.
Increased resistance to chlorinated disinfectants
Implementation without additional materials

Material: HDPE PE100-RCD
Available diameters: 20 to 1600 mm
Operating pressure: PN10 to PN25
Certifications : NF114 brand – Group 2
Norme NF EN 12201
Sanitary Conformity Certificate (ACS)

Connection and implementation

- TEC 1 drinking water PE100-RCD can be assembled by welding using the electrofusion technique (electrofusion fitting) or the fusion welding technique.
- These connection techniques make the network self-supporting and save on concrete stops or locking systems at changes of direction.
- TEC 1 drinking water pipes are resistant to slow cracking. They remain reliable even in the presence of hard spots. They therefore accept any type of backfill from the trench opening, regardless of its particle size. Heavy or sharp items that could crush or cut the pipe must be removed from the backfill.
- The pipes will therefore be suitable for alternative laying techniques - without sand bedding - in open trenches (mechanical excavator or trencher), as well as for the most recent trenchless installation techniques (pipe bursting, directional drilling, etc.). Please contact us for more information.
- They can tolerate surface scratches up to 10% of the maximum thickness. The use of a blue warning mesh is recommended.
- TEC 1 drinking water PE100-RCD pipes can also be laid above ground.

100% RECYCLABLE · 100% RECYCLABLE ·

Benefits

- TEC 1 drinking water pipes in PE100-RCD combines the advantages of PE100-RC and PE100-RD
- High resistance to chlorinated disinfectants
- High resistance to slow cracking
- Implementation without sand bedding

TEC 1 DRINKING WATER +

- Facilitated on-site logistics
- Reduction of the environmental impact of construction sites
- Reduced use of supplementary materials
- Ensures safe operation

50 years
50 YEAR WARRANTY

SANITARY CONFORMITY CERTIFICATE (ACS)

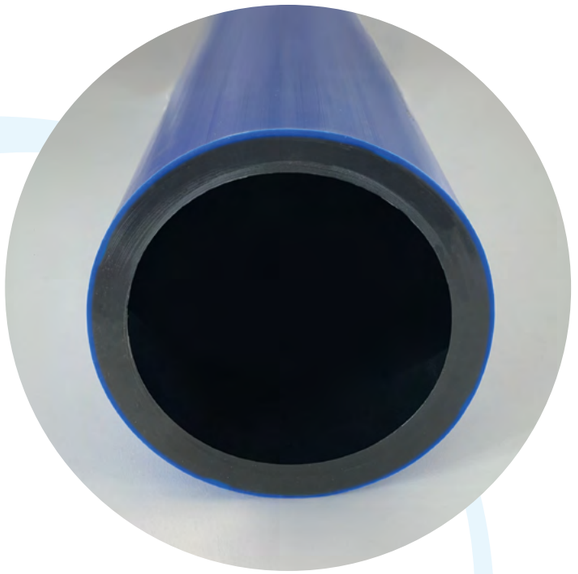
MADE IN FRANCE

NF
TUBES EN POLYETHYLENE

DRINKING WATER SUPPLY

Product information sheet

TEC 2 drinking water



Polyethylene pipe
PE100-RC Black + PE100-RC Blue (ext)
The slow cracking resistant pipe

Material: HDPE PE100-RC
Black + Blue outer layer
Available diameters: 25 to 1000 mm
Operating pressure: PN 10 to 16
Certifications :
Standard NF EN 12201
Sanitary Conformity Certificate (ACS)

Connection and implementation

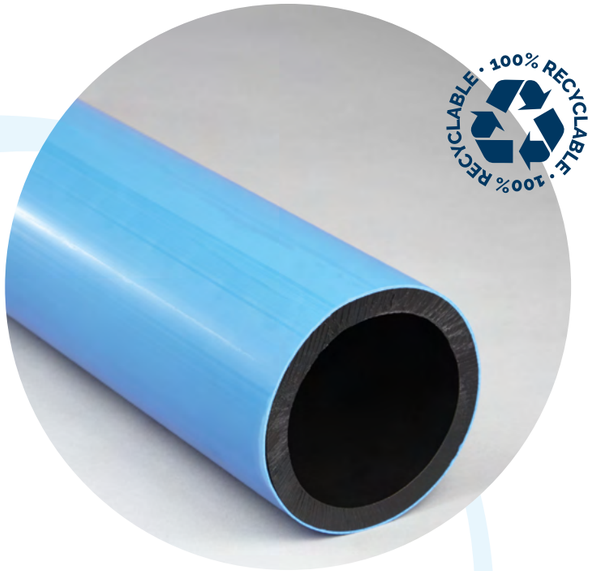
- TEC 2 AEP drinking water are manufactured from high density polyethylene PE100-RC, black in color over 90% of the pipe thickness, with a functional blue exterior coloring over the outer 10% of the pipe thickness.
- This visual indicator makes it possible to distinguish scratches that are too deep (> 10% of the thickness) requiring the pipes to be replaced.
- TEC 2 drinking water pipes are used for the construction of underground or above-ground drinking water supply, distribution and connection networks.
- They are suitable for work on creating and renewing networks, or for the rehabilitation of existing pipelines.

Benefits

- High resistance to slow cracking
- Implementation without sand coating
- Visual indicator for quick and easy inspection

Product information sheet

TEC 3 drinking water



PE100-RCD polyethylene pipe, black with blue stripes and polypropylene protective overlay
For trenchless «aggressive» works: pipe bursting, directional drilling, etc. Allows reuse of on-site backfill, including sarp materials.

Material: HDPE PE100-RCD, polypropylene (PP) protective layer
Available diameters: 25 to 1000 mm
Operating pressure: PN10 to PN25
Certifications : Certified inner pipe to the NF114 brand - Group 2.
Standard NF EN 12201
Sanitary Conformity Certificate (ACS)

Connection and implementation

- TEC 3 drinking water pipes are designed for trenchless applications.
- TEC 3 drinking water pipes are used for the construction of underground drinking water supply, distribution and connection networks.
- TEC 3 drinking water pipes are made of high-density polyethylene PE100-RCD, black in color, coated with a protective skin of blue polypropylene, resistant to scratches and impacts.
  They are used for the construction of drinking water networks.
- This new generation of high-quality pipe combines the advantages of PE100-RD (increased resistance to disinfectants) and PE100-RC (increased resistance to slow cracking):
- They withstand severe conditions in terms of disinfection (high concentration of chlorine, chlorine dioxide, etc.) and temperature.
- Their very high resistance to slow crack propagation allows the reuse of existing materials for backfilling trenches – without sand coating – and thus contributes to the creation of more environmentally friendly construction sites.

Benefits

- Trenchless installation
- Advantages of PE100-RCD
- Implementation without sand coating
- Protection against scratches and impacts
- High resistance to slow cracking
- High resistance to chlorinated disinfectants

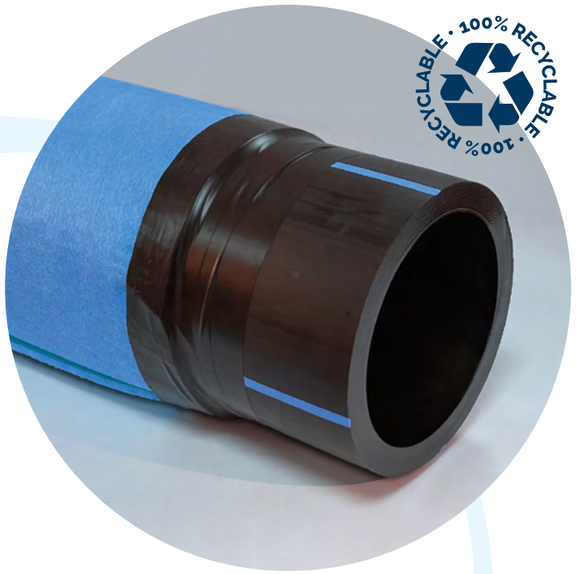
50 years
50 YEAR WARRANTY

SANITARY CONFORMITY CERTIFICATE (ACS)

MADE IN FRANCE

Product information sheet

TEC 4 drinking water



PE100-RCD polyethylene pipe + Geotextile, black pipe with blue stripes covered by blue geotextile
The ideal pipe for installations with in-situ backfill, including sharp materials

Material: HDPE PE100-RCD + Geotextile
Available diameters: 125 and 160 mm
Operating pressure: PN10 to PN25
Certifications: pipe certified to the NF114 brand - Group 2
Standard NF EN 12201
Sanitary Conformity Certificate (ACS)

Connection and implementation

- TEC 4 drinking water pipes are made of high density polyethylene PE100-RCD, black with blue identification stripes, and factory wrapped with a blue geotextile.
- They are used for the construction of drinking water networks.
- The geotextile provides the pipe with mechanical protection against puncturing by aggressive (sharp) materials. This allows the pipes to be laid without sand bedding and promotes the reuse of site materials.

Benefits

- Polyethylene is a modern material, used for almost 60 years for the construction of underground pipes.
- Long-term performance characteristics, which give the pipes a minimum lifespan of 100 years.
- A guarantee of high quality, the TEC 4 drinking water is the best existing polyethylene resin in terms of pressure resistance.

ELYDAN'S +

- Optionally, a tracer wire is present between the pipe and the geotextile wrapping to facilitate detection and location of the tube.

50 years
50 YEAR WARRANTY

SANITARY CONFORMITY CERTIFICATE (ACS)

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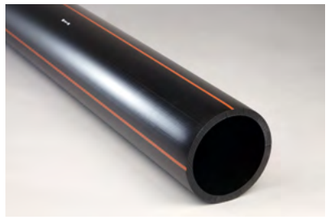
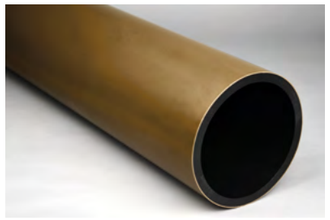
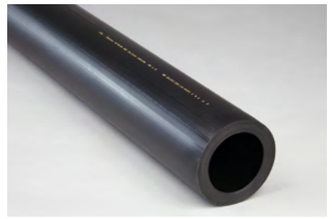
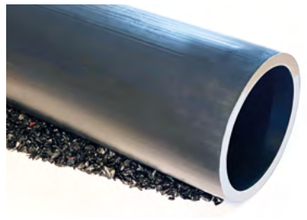
NF
TUBES EN POLYETHYLENE

Our ranges of pipes
Sewer and industry networks







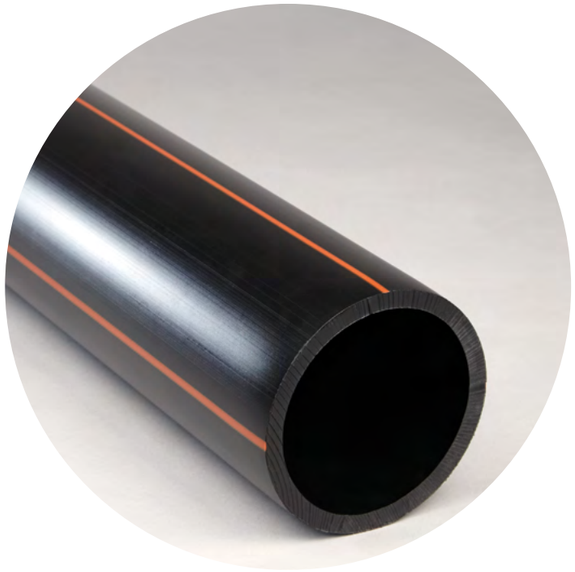


PRODUCT	PE100	PE100-RC COATED W/PP	PE100	CIRCULAR
Product name	**PE100 Sewer**	**TEC 3 Sewer**	**PE100 Industry**	**Circular Industry**
Material	PE100	PE100-RC + PP (ext)	PE100	rHDPE
Visual characteristics	Black with brown stripes	Brown	Black	Black
Certification	Brand NF114 - Gr4 NF	Internal pipe certified brand NF114 - Gr4	Brand NF114 - Gr4 NF	
Standard	NF EN 12201	NF EN 12201	NF EN 12201 and NF EN ISO 15494	Specification NF EN 12201
Made in France	✔	✔	✔	✔
Available diameters	63 mm to 1600 mm	63 mm to 1000 mm	20 mm to 1600 mm	90 mm to 800 mm
Packaging				
Coil	✔	✔	✔	
Bar	✔	✔	✔	✔
Drum	✔	✔	✔	✔
Installation technique	Open trench	Open trench and trenchless	Open trench	Open trench
Operating conditions	Normals	Severe	Normals	Normals
Coating / implementation	With sand coating	Without sand coating, excavated material in place, including sharp edges	With sand coating	With sand coating
Nominal pressure (PN - bars)	10 to 16	10 to 25	6 to 25	8 to 16
Punching resistance	✔	✔✔	✔	✔
Reduction of the environmental impact of the construction site	✔	✔✔	✔✔	✔✔✔✔
Kg Eq.CO^2 (functional unit = kg)*				
DN/OD 20 to 225 mm	2.25	2.25	2.25	
DN/OD 250 to 355 mm	2.19	2.19	2.19	
DN/OD 450 to 1600 mm	2.08	2.08	2.08	
Bio-Circular material option with ISCC+** certification	✔	✔		
Recyclability	✔	✔	✔	✔
100 years lifespan	✔	✔	✔	
Detectable pipe option		✔		

* based on the STRPEPP FDES, Environmental and Health Declaration Sheet
** material of non-fossil origin made from organic waste (wood, cooking oils, etc.)

Product information sheet

PE100 Sanitation



PE100 polyethylene black pipe with brown stripes
The reference for pressure wastewater networks

Material : HDPE PE100
Available diameters: 63 to 1600 mm
Operating pressure: PN10 to PN16
Certifications: NF114 brand – Groupe 4 Standard NF EN 12201

Available as an option in PE100-RC.

Connection and implementation

- PE100 Sanitation pipes are mainly used for underground or above-ground pumped wastewater applications, and are also suitable for gravity flow applications.
- They are suitable for new installations, and network renewal projects, or the rehabilitation of existing pipelines.
- PE100 Sanitation pipes can be assembled by welding using either electrofusion technique (electrofusion fitting) or fusion welding technique.
- These connection techniques make the network self-supporting and save on concrete stops or locking systems on direction changes.
- PE100 Sanitation pipes are suitable for traditional open trench laying techniques, as well as certain alternative methods: mechanized trenching or lining of existing pipes... for new construction, renewal, or network rehabilitation. Contact us for more information.
- For burried installations, PE100 Sanitation pipes must be laid with a sand bedding. They can withstand surface scratches up to 10% of their maximum thickness. It is recommended to install a brown warning mesh.

Benefits

- Advantages of PE100

100% RECYCLABLE · 100% RECYCLABLE ·

NF TUBES EN POLYETHYLENE

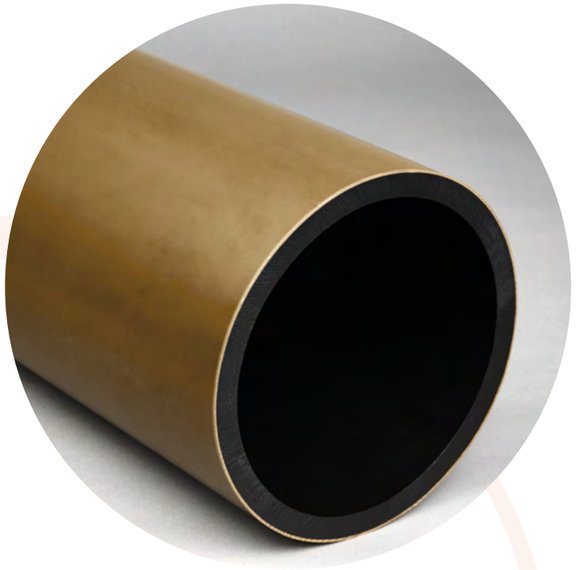
50 years 50 YEAR WARRANTY

MADE IN FRANCE

SANITATION

Product information sheet

TEC 3 Sanitation



PE100-RC polyethylene pipe, black with brown stripes, and a protective polypropylene overlay
"Aggressive" trenchless work: bursting, directional drilling...

Material: HDPE PE100-RC, polypropylene (PP) protective layer
Available diameters: 63 to 1000 mm
Operating pressure: PN10 à PN16
Certifications: Certified inner pipe to the NF114 brand - Group 4
Standard NF EN 12201

Connection and implementation

- TEC 3 Sanitation pipes designed for trenchless applications.
- TEC 3 Sanitation pipes are made of high-density polyethylene PE100-RC, black in color, coated with a protective layer of brown polypropylene, resistant to scratches and impacts.
- They are used for the construction of wastewater networks.
- The very high resistance to slow crack propagation of TEC 3 Sanitation pipes allows the reuse of excavated materials for trench backfilling – without sand coating – and thus contributing to more environmentally friendly construction projects.

Benefits

- Advantages of PE100-RC
- High resistance to slow cracking
- Implementation without sand coating
- Protection against scratches and impacts

100% RECYCLABLE · 100% RECYCLABLE ·

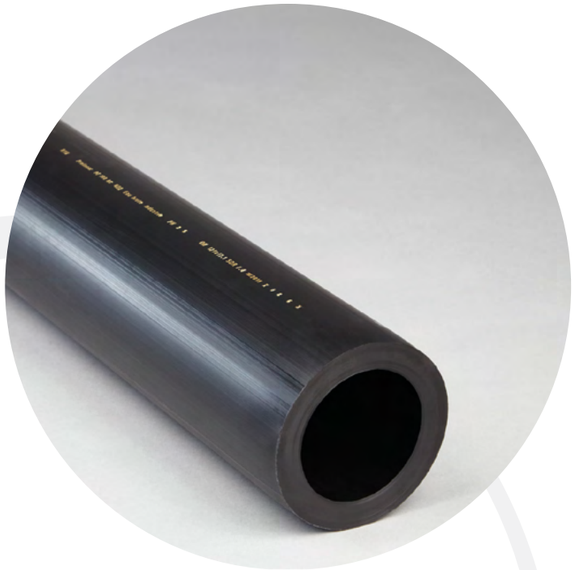
NF TUBES EN POLYETHYLENE

50 years 50 YEAR WARRANTY

MADE IN FRANCE

Product information sheet

PE100 Industry



PE100 polyethylene pipe, black
PE100 INDUSTRY pipes are suitable for new network construction, network renewal, or the rehabilitation of existing pipelines.

Material: HDPE PE100
Available diameters: 20 to 1600 mm
Operating pressure: PN6 to PN25
Certifications: NF114 brand – Group 4
Standard NF EN 12201 and NF EN ISO 15 494

Connection and implementation

- PE100 industry pipes are intended for the construction of underground or above-ground networks for the pressurized transport of non-drinking, industrial water, or for the construction of fire networks from PH 2 to 13, or of pressurized compressed air.
- PE100 provides mechanical, chemical and thermal characteristics essential for this type of application.

Benefits

- Advantages of PE100

100% RECYCLABLE · 100% RECYCLABLE ·

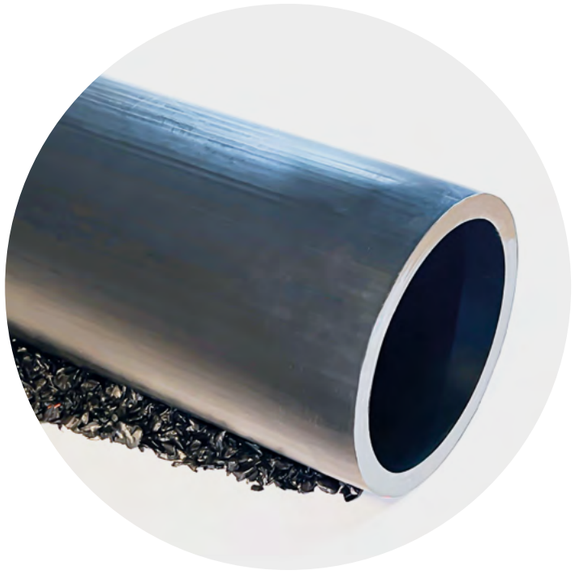
NF TUBES EN POLYETHYLENE

50 years 50 YEAR WARRANTY

MADE IN FRANCE

Product information sheet

Circular Industry



INNOVATION

rHDPE black pipe
The most environmentally friendly pipe

Material: rHDPE
Available diameters: 90 to 800 mm
Operating pressure: PN8 to PN16
Standard: specifications of NF EN 12201-2

Connection and implementation

- Circular Industry pipes are made of black high-density polyethylene (HDPE) for pressure applications and are manufactured from recycled PE80/PE100 material. The recycled material comes from a selective and rigorous sorting of recovered tubes, particularly from construction sites.
- These 100% recycled pipes can be used for underground or above-ground installation of pressurized pipelines for non-potable or industrial water with a pH of 2 to 13.
- Circular Industry can be used for new, renewal or temporary networks in applications such as:
  - Dredging
  - Pumping diversion
  - By-pass
  - Tunnel boring machine supply
  - Floaters for photovoltaic panels

Benefits

- Reduction of the environmental impact of construction sites

100% RECYCLABLE · 100% RECYCLABLE

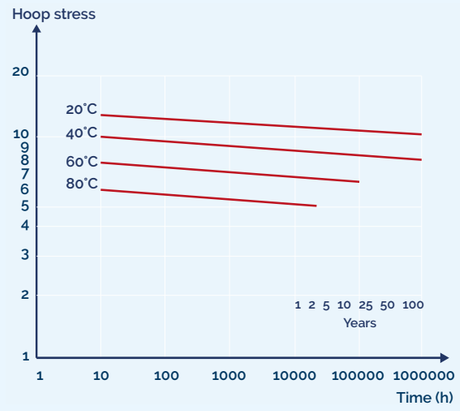
MADE IN FRANCE

CIRCULAR

PE100 polyethylene

A high performance and durable material

Polyethylene is a modern material, used for nearly 60 years for the construction of buried pipelines. High-density polyethylene PE100 stands out for its **long-term performance characteristics**, which give the pipes **a minimum lifespan of 100 years**. A guarantee of high quality, PE100 is currently the best polyethylene resin available in terms of pressure resistance.



Regression curves, derived from accelerated aging tests and correlated with samples from operating pipes, allow the long-term performance of polyethylene pipes to be extrapolated. These curves show that PE100 pipes can withstand a hoop stress of 10 MPa for more than 100 years and with a water temperature of 20°C.
This value, called 'Minimum Required Stress' (MRS), allows the material to be classified as PE100. The pipes are thus sized to withstand a constant hydrostatic pressure at 20°C equal to the PN of the pipe, for a minimum duration of 100 years.

Classification of Polyethylene	MRS
PE100	10,0 MPa
PE80	8,0 MPa

The many advantages of PE100 polyethylene and the welding connection make it the reference system for gas distribution, an area in which any risk of leakage is prohibited.

Dimensional characteristics

	PRESSURE CLASSES														
	PN 10 SDR 17			PN 12,5 SDR 13,6			PN 16 SDR 11			PN 20 SDR 9			PN 25 SDR 7,4		
DN/OD (mm)	Thk. (mm)	Id* (mm)	Weight (Kg/ml)	Thk. (mm)	Id* (mm)	Weight (Kg/ml)	Thk. (mm)	Id* (mm)	Weight (Kg/ml)	Thk. (mm)	Id* (mm)	Weight (Kg/ml)	Thk. (mm)	Id* (mm)	Weight (Kg/ml)
20	–	–	–	–	–	–	3,0	14,0	0,170	3,0	14,0	0,170	3,0	14,0	0,170
25	–	–	–	–	–	–	3,0	19,0	0,220	3,0	19,0	0,220	3,5	18,0	0,250
32	3,0	26,0	0,280	3,0	26,0	0,280	3,0	26,0	0,280	3,6	24,8	0,326	4,4	23,2	0,390
40	3,0	34,0	0,362	3,0	34,0	0,365	3,7	32,6	0,431	4,5	31,0	0,510	5,5	29,0	0,610
50	3,0	44,0	0,462	3,7	42,6	0,555	4,6	40,8	0,670	5,6	38,8	0,790	6,9	36,2	0,950
63	3,8	55,4	0,73	4,7	53,6	0,885	5,8	51,4	1,06	7,1	48,8	1,26	8,6	45,8	1,49
75	4,5	66,0	1,04	5,6	63,8	1,25	6,8	61,4	1,48	8,4	58,2	1,77	10,3	54,4	2,12
90	5,4	79,2	1,47	6,7	76,6	1,77	8,2	73,6	2,15	10,1	69,8	2,57	12,3	65,4	3,04
110	6,6	96,8	2,19	8,1	93,8	2,65	10	90,0	3,19	12,3	85,4	3,82	15,1	79,8	4,55
125	7,4	110,2	2,79	9,2	106,6	3,41	11,4	102,2	4,13	14,0	97	4,94	17,1	90,8	5,83
140	8,3	123,4	3,50	10,3	119,4	4,27	12,7	114,6	5,15	15,7	108,6	6,20	19,2	101,6	7,35
160	9,5	141,0	4,57	11,8	136,4	5,60	14,6	130,8	6,75	17,9	124,2	8,07	21,9	116,2	9,58
180	10,7	158,6	5,80	13,3	153,4	7,10	16,4	147,2	8,55	20,1	139,8	10,2	24,6	130,8	12,1
200	11,9	176,2	7,15	14,7	170,6	8,70	18,2	163,6	10,6	22,4	155,2	12,65	27,4	145,2	15,0
225	13,4	198,2	9,05	16,6	191,8	11,0	20,5	184,0	13,3	25,2	174,6	16,0	30,8	163,4	18,95
250	14,8	220,4	11,1	18,4	213,2	13,6	22,7	204,6	16,4	27,9	194,2	19,65	34,2	181,6	23,4
280	16,6	246,8	14,0	20,6	238,8	17,0	25,4	229,2	20,6	31,3	217,4	24,7	38,3	203,4	29,3
315	18,7	277,6	17,7	23,2	268,6	21,6	28,6	257,8	26,0	35,2	244,6	31,2	43,1	228,8	37,1
355	21,1	312,8	22,5	26,1	302,8	27,3	32,2	290,6	33,0	39,7	275,6	39,7	48,5	258,0	47,0
400	23,7	352,6	28,4	29,4	341,2	34,6	36,3	327,4	42,0	44,7	310,6	50,3	54,7	290,6	59,7
450	26,7	396,6	35,9	33,1	383,8	43,9	40,9	368,2	53,1	50,3	349,4	63,7	61,5	327,0	75,6
500	29,7	440,6	44,5	36,8	426,4	54,5	45,4	409,2	65,5	55,8	388,4	78,5	–	–	–
560	33,2	493,6	55,5	41,2	477,6	68,0	50,8	458,4	82,5	62,5	435	98,4	–	–	–
630	37,4	555,2	70,5	46,3	537,4	86,0	57,2	515,6	104,0	70,3	489,4	125	–	–	–
710	42,1	625,8	89,0	52,2	605,6	109,0	64,5	581	134	79,3	551,4	159	–	–	–
800	47,4	705,2	113,0	58,8	682,4	139,0	72,6	654,8	168	89,3	621,4	201	–	–	–
900	53,3	793,4	144,0	66,1	767,8	176,0	81,7	736,6	213,0	–	–	–	–	–	–
1000	59,3	881,4	177	73,5	853	217	90,8	818,4	263	–	–	–	–	–	–

*Id: Inner diameter

elydan

127 avenue Louis Blériot
Grenoble Air Parc
38590 St-Étienne-de-St-Geoirs - France

+33(0)4 76 93 43 43 • contact@elydan.eu

elydan.eu

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