# TURBO COLLECTOR

## TECHNICAL DATA SHEET

**PE100-RC Ø32 Ø40 Ø45 Ø50 Ø63**
**SDR17 – SDR13,6 – SDR11**

**Probe design**
Patent no: 2 195 586

TurboCollector represents a patented advancement in traditional collectors, boasting markedly improved heat transfer characteristics achieved through a more turbulent flow. Field measurements demonstrate that TurboCollector exhibits up to 33% lower bore resistance compared to equivalent measurements on a smooth collector.

**Installation and operation**

The collector is delivered with the desired length and adapted to be easily installed with associated installation products, e.g. collector reel, collector feeder.

**Delivery form**

The U-bend is well protected with a protection cap, ensuring its durability. The U-bend solution is designed to accommodate additional weights, facilitating an easier installation process. The collectors are stacked well on wooden pallets for a seamless transport and effortless installation. Desired length could be ordered with 10-meter intervals.

**Material**

Polyethylene PE100-RC (RC=resistance to cracking)

**Dimension & pressure class**

Ø32, Ø40, Ø45, Ø50, Ø63 PN10 SDR17, PN12.5 SDR13.6, PN16 SDR11

**Standard**

Our products have obtained certifications from Insta-cert, P-marking, and SKZ, tailoring to the specific requirements of the local market.

DIN EN 12201-2, SKZ HR3.26:A825/A759/A760, RISE SPCR 169

**Physical properties**

| | |
|---|---|
| Density | 0.95–0.97 g/cm3 |
| Pipe roughness | 0.03 mm |
| Minimum bending radius at 0°C | 50 × dn |
| Minimum bending radius at 10°C | 35 × dn |
| Minimum bending radius at 20°C | 20 × dn |

**Mechanical properties**

| | |
|---|---|
| Tensile modulus of elasticity (23°C, v = 1 mm/min, secant) | 1100 MPa |
| Yield stress (23°C, v = 50 mm/min) | 24 MPa |
| Tensile deformation (23°C, v = 50 mm/min) | 9% |
| FNCT (4.0 MPa, 2% Arkopal N100, 80°C) | > 1 year |
| Point Loading Test | > 1 year |
| Failure strain | >/= 350% |
| Mean thermal coefficient of linear thermal expansion | 0.18 mm/m K |

**Hardness**

| | |
|---|---|
| Shore hardness (Shore D (3 sec)) | 62 |

**Thermal properties**

| | |
|---|---|
| Thermal conductivity | ~0.4 W/mK |
| Specific thermal capacity | 1.9 J/g K |
| Maximum temperature | +40°C |
| Minimum temperature | - 20°C |

When using permanent operating temperature higher than +20 °C to +40 °C.
Pressure reduction factor: +20 °C: 1,0, +30 °C: 0,87, +40 °C: 0,74

MuoviTech®

**MuoviTech AB**, Tvinnargatan 11, 507 30 Brämhult, Sweden
**TEL** +46 (0)33 22 85 85 **EMAIL** info@muovitech.com **WEB** www.muovitech.com