


Plastic Cable Duct - Multiport

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INFORMATION ON THE ECO-INNOVATIVE SOLUTION PROVIDER

Founded in 1991 in Bernburg, Multiport GmbH is specialized in recycling PE HD and PP plastic waste into compounds for different applications. Sister company MultiPet GmbH recycle PET bottles and produce PET Flakes for sheets, bottles, strapping and fibers. Moreover, innovative products for the do it yourself sector and for the construction industry are made on own injection moulding machines. Thus, experience from injection moulding of high quality plastic products is gained to define the quality criterion for our compounds. The use of compounds for the injection moulding of our manufactured articles increases the competitiveness. Plastic Solutions + Consulting GmbH a subsidiary of both companies mentioned above, unifies the entire management knowledge, starting with plant planning to operator models, from purchasing planning of plastic waste to the distribution of the won recyclates and the produced final products. Therefore, Plastic Solutions + Consulting offers the entire knowledge and experience.

SHORT DESCRIPTION OF THE ECO-INNOVATIVE SOLUTION

By the use of our products the plastic converter saves CO₂ emissions. The saving at HDPE is 1,374 t per t virgin and at PET the savings are 2,201 t per t virgin.

INDUSTRIAL SECTOR – MARKET SEGMENT AND ACTUAL APPLICATIONS IN INDUSTRY

MPO plastic cable duct:

Alongside railways, power plants, airports or for telecommunications – the availability of technical facilities is dependent on the power supply and transfer of information. In order to guarantee this, a variety of damageable cables have to be protected effectively against external influences. The MPO plastic cable duct was developed as substitute for the mainly used concrete cable ducts. The MPO plastic cable duct ensures the constant supply of the route with signal and communication lines. The MPO plastic cable duct has been developed as a result of many years of practical experience. Discussions with responsible site managers and with fitters - who after all are the people who carry out the installation – have shown us in what respects the MPO plastic cable duct could be improved. Horizontal segments are attached to the side walls of the trough. When the cable duct ditches are filled in, a wedge of earth is formed so that the weight of the troughs increases many times over as soon as they have been installed. This means that the duct is better and more securely seated, even without earth nails. The ends of the covers overlap, which prevents soiling from outside. But it is still possible to open a single cover in a formation without having to raise the adjacent covers at the same time. Linear expansion caused by solar radiation is also taken up by the overlapping. The covers can be placed on one trough or can overlap over two troughs. Advantage: the ducts fit more tightly together.

Our HDPE compounds are used in plastic pipe industry and to produce dumpling sheet.

The PET Flakes are used to produce thermoform

1. DESCRIPTION OF ECO-INNOVATIVE SOLUTION

Technical aspects of the eco-innovative solution

The cable duct comes in sizes 1 i.F. and 2 i.F.

1 i.F.

external (l x w x h): 1,000 x 200 x 230 (mm)

internal (l x w x h): 1,000 x 100 x 155 (mm)

weight approx. 7 kg

2 i.F. external (l x w x h): 1,000 x 340 x 230 (mm)

internal (l x w x h): 1,000 x 240 x 155 (mm)

weight approx. 9 kg

Material: PP recycleate with additives Fire behaviour:

Fire protection class K1 in accordance with DIN 53438 Part 2

Therm. characteristics: Continuous thermal stability from -30°C to +80°C

Electr. characteristics: Compliance DIN EN IEC 60243-1 (VDE 0303)

Breakdown voltage: 49.5 kV AC/mm

Dielectric strength: 22.9 kV AC/mm

Mechanical data: Load capacity of 15 KN — without breakage according to DIN EN 1433

Licensing: Licensing free according to the railway specific component control list E C, until 2010 Federal Railways Office 21AZ2/1005/ 1

Economic and environmental benefits of the eco-innovative solution

MPO plastic cable duct is ideal for laying in signal and communication lines underground on railway routes and in power plants and industrial installations. The fact that it can be laid so simply and quickly is particularly useful with short closing times or on difficult ground. Its structural design ensures that it is very stable in spite of its low weight and it provides cables and pipes with effective protection against external influences.

- horizontal segments — increase weight substantially when installed
- can be laid above ground if earth nails are used
- cover can be installed over two troughs
- cover can be firmly connected even when open
- covers can be opened individually
- cables and pipes that have been laid are easily accessible anywhere and at any time
- cables and pipes are effectively protected against external influences
- no earthing or insulation necessary
- easy adjustments on-site — with the help of woodworking tools the duct can be angled off as required, junctions can be attached and height differences can be overcome
- cable duct can be laid simply and quickly, cutting down closure times for assembly
- light weight

- stable design
- no jointing components
- maintenance-free
- MPO plastic cable duct is reusable
- 100% recyclable
- highly economical

2. AVAILABILITY OF THE ECO-INNOVATIVE SOLUTION AND BUSINESS PARTNERSHIP

Market readiness, Trade mark, existing market coverage, commercialization strategy

Everything is available on the market:

Trade names

MPO cable duct

multithene: HDPE compound

multipet: PET Flakes

multiprop: PP compounds

Requirements to adapt the solution to the local market and potential applications/market size

No adaption needed

On site-after-sales services support and the technical assistance requirements

After sales available

Targeted local business partners

Plastics converting industry:

HDPE compound: pipe producer, dumping sheet producer,-

PET: thermoform sheet, bottles, strapping, fibre producer,

Cable duct: supplier (construction company) railway,

Type of local business partnership sought

Business partners, customer

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Regional Activity Centre
for Sustainable Consumption
and Production

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