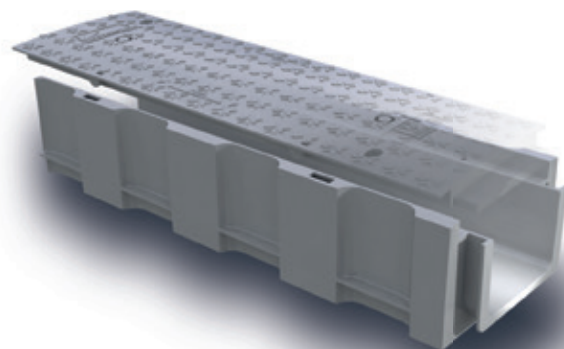




# Cable Protection

## PROtrough



### Applications:

**PROtrough is an innovative, lightweight, fire retardant cable trough system that offers a modern alternative to traditional concrete trough systems for rail, light rail and power markets when easily deployed and accessible cable management systems are required.**

PROtrough is a GRP cable management trough that has been designed to comply with all European fire retardancy and thermal specifications, including those for tunnels and stations.

The system offers a simple slide and drop male to female connectivity and is suitable for a single person lift and install. Being lightweight and easy to deploy results in considerable project time and cost savings.

The PROtrough has been designed to have no restriction on cable ambient operating temperatures and to eliminate the common heat distortion and thermal expansion issues associated with thermoplastic troughing systems. A cable divider panel enables multiple services to run alongside one another.

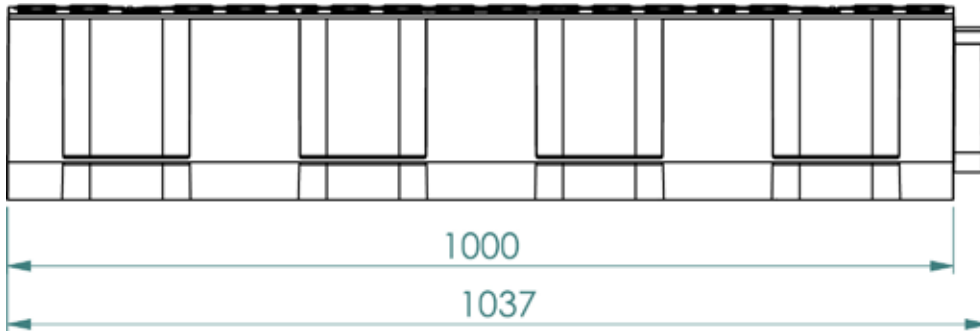
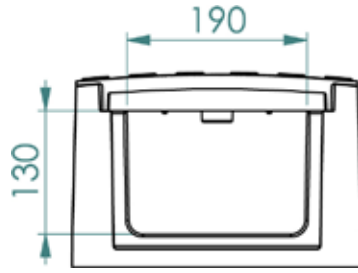
PROtrough is modular and lightweight which enables convenient product deployment and installation throughout complex power and energy facilities.

### Advantages

- ◇ Lightweight design 5 times lighter than concrete
- ◇ Superior structural integrity compared to thermoplastic alternatives
- ◇ Designed to comply with major European fire retardancy specifications
- ◇ Eliminates common heat distortion and thermal expansion issues
- ◇ Extensive range of accessories to enable flexibility and ease of deployment
- ◇ Seamless integration with STAKKAbox™ access chamber and cable protection systems



A CRH COMPANY



### Material Properties

Material Properties		
Material Profile	Glass Reinforced Polyester (GRP)	Grey
Tensile Strength	ISO 527-4	70 MPa
Flexural Strength	ISO 14125	110 MPa
Flexural Modulus	ISO 14125	9.5 GPa
Impact Strength	ISO 179	50KJ/mm <sup>2</sup>
Heat Distortion Temperature Range	ISO 75-2	>200 °C
Density	ISO 1183	1.75 g/cm <sup>3</sup>
Water Absorption	ISO 62	≤0.5%
Volume Resistivity	IEC 60093	1.00E12 Ω/cm
Fire Performance	UL 94	HB
Limited Oxygen Index	ISO 4589-2	23%