

## Duct Sizes – 50mm to 250mm (off the shelf)

Duct Seal FR is an innovative, low-smoke, zero-halogen duct sealing system designed for exceptional flexibility. It effectively seals all cable sizes, including large, heavy cables and pipes within ducted networks. This system is engineered to prevent the ingress of harmful or flammable gases, liquids, fire, smoke, and pests, and it has been rigorously tested according to BS EN1366:3 2021.

Duct Seal FR features our patented, pending design comprising Intumescent circular-shaped tubes manufactured from our FireStuff marine-grade granulate. These tubes can be seamlessly connected, torn apart, and reconfigured into a cross-shaped structure to accommodate trefoil cables. This unique backing support system provides robust structural integrity and minimises cable movement during the application of our flexible intumescent adhesive and sealing compounds, GreyStuff or Red Stuff. All components are designed and manufactured in the UK, ensuring high quality and reliability.

DuctSeal FR, along with GreyStuff or RedStuff, is a non-hazardous, superior single-component, neutral curing sealant that has been specifically developed to cope with the harsh environments around duct openings to ensure ducted networks and penetrations are protected.



## ORDER DETAILS

Part No.	Duct Opening Max	Units Sold
<b>Using 1 x Ducteal FR Kit – up to 100mm</b>		
<b>DSFR100</b>	100mm	1 x DSFR100 Kit
<b>Using 2 x Ducteal FR Kits – up to 150mm</b>		
<b>DSFR150</b>	150mm	2 x DSFR100 Kits
<b>Using 3 x Ducteal FR Kit – up to 200mm</b>		
<b>DSFR200</b>	200mm	3 x DSFR100 Kits
<b>Using 4 x Ducteal FR Kits – up to 225mm</b>		
<b>DSFR225</b>	225mm	4 x DSFR100 Kits
<b>Using 5x Ducteal FR Kits – up to 250mm</b>		
<b>DSFR250</b>	250mm	5 x DSFR100 Kits

## FEATURES & STANDARDS

- Fire Resistant, tested to BS EN1366:3 2021
- Flame Retardant - tested to UL94: 2013 ANSI / UL 94: 2018
- Water & Gas tight to 2.0 bar
- Non-slumping
- High bonding strength
- Odourless when curing
- Flexible & Intumescent
- UV & Ozone resistant
- Non-hazardous
- Zero halogens used
- Emits 0% MEKO
- Resistant to Hydrocarbons (Petrol, Diesel, ASTM oil, & LPG Gas)
- Resistant to Methane, Hydrogen Sulphide, & Chlorine gas – Independently tested.
- Resistant to many other gases & liquids, for example, ADBLUE, & Antifreeze.
- Very strong porous sticky char is formed when exposed to fire, which has excellent thermal insulation properties.
- Microbial resistance – coverage against Fungi, E-Coli, Escherichia coli, Staphylococcus aureus, & A. brasiliensis
- Complies with DSEAR duct sealing regulations.
- WIMES compliant, as described in the WIMES Specification in section, 3.02 2013 clause 6.4.3.2b)
- Complies with 2011 NEC Articles 225.27, 230.8, 300.5(G), 300.7 (A) on Raceway Seals, and 501.15 (B)(2)
- Petrol station forecourt accepted, as per the technology described in the APEA Blue
- ATEX Compliant - Contains no moving parts or any form of material that can create a spark



## INSTALLATION

### One Kit per Box

All components included to seal 1 x duct as per the kit size mentioned (Caulking gun not included, but can be sold separately).

\*\* One kit may fill more than one duct, depending on cable % fill.\*\*

Call **+44 (0)161 874 1480** for advice.

### Cable Separation

It's imperative to ensure separation between each cable and from the inside of the duct. Our unique daisy-chained circular tubes easily separates and supports single or multiple cables. Using our patent pending tubular rubber tubes, various shapes can be made to help with cable separation, for example, trefoil/triplex cables

### Running Water

The duct & cables can be damp but with no running water. All dirt, oil or grease must be cleaned before applying GreyStuff or RedStuff.

### Cure Time

GreyStuff and RedStuff will cure 3-4mm daily, depending on the Humidity and temperature. The higher the humidity % and temperature, the quicker our sealants will cure. A minimum requirement of 25mm is required for an effective seal.

### Cleaning

Uncured material spillages can be cleaned with a solvent-based wipe.

### Fire Certification

Important Note: A fire rating is applicable only to an "as fire tested" system or an otherwise approved configuration. The entire system or configuration achieves the described fire rating only when a specific proprietary brand of product is installed in an identical manner to the approved tested configuration. Always ensure that your installation matches our fire test certification. It is the end user's responsibility to verify that DuctSeal FR is the correct system for the project requirements. *Please contact our technical department to request a copy of our test report, and refer to our Duct Sealing Disclaimer.*

### GreyStuff or RedStuff Fire Resistance

GreyStuff sealant was tested according to BSEN1366-3:2023. RedStuff has not been tested, but can be used with your authorisation only (customer and/or end user). We can confirm that the difference between GreyStuff and RedStuff is less than <1%. The only change in the formulation from GreyStuff to RedStuff is the pigment component. This alteration does not affect the fire resistance, physical properties, or manual handling of the final product.

### Health & Safety

GreyStuff & RedStuff are based on a neutral curing system that is hazardous-free to protect users when carrying out tasks like sealing cable ducts. Non-hazardous Zero MEKO.

### Re-entry & Removal

GreyStuff & RedStuff will cure to a similar hardness of a rubber eraser, so re-entry and removal are achievable. The ease of this depends on the type of tools used. For example, a sharper tool will be easier than a blunt-ended tool. Only use sharp tools when cables are de-energised. AC Cable Solutions accepts no responsibility for damaged cables.

### Cable Suitability

GreyStuff and RedStuff are a single-component neutral curing system containing no solvents. Our formulation does not damage the properties of a cable sheath, or stain surfaces.

### Storage

Both GreyStuff & RedStuff should be kept in a cool, dry environment and away from sunlight. Product shelf life is 12 months. Once opened, any remaining product can still be used for 1 month afterwards, provided the screwcap is securely fitted.

### Fire Resistance

- Up to 4 hours (240 mins) Fire Resistance (in both directions)
- BS EN 1366-3:2021 which supersedes BS EN 1366-3:2009
- Cables tested: Small, Medium, Large, Telecommunication & Bundles
- Cables types: NYY-O, N2XH-J, HO7V-K, J-Y(ST) Y
- Warrington Fire cable Ref: (B), (G), (D3), (F) & (E)
- Tested in penetrations up to 200mm (8 inches) in diameter
- Tested in 140mm thick low-density concrete walls (no duct or sleeve)
- Tested at Warrington Fire (Exova)



Feature	Measurement
Density	1.27
Colour	Anthracite Grey or Brick Red
Skin Over Time	10 mins
Curing	3-4mm per day
Tack Free Time	22 mins
Hardness	35 to 38 Shore A
Elongation	250%
Flow	3.33 million cPs at 380°C
Tensile Strength	0.72N/mm <sup>2</sup>
Operating Temp.	+5 to 40°C
Temp. Resistance	-35 to +120°C
Intumescence Activation Temp.	210°C
Pressure Resistance	2.0 Bar
Shelf Life	12 months

