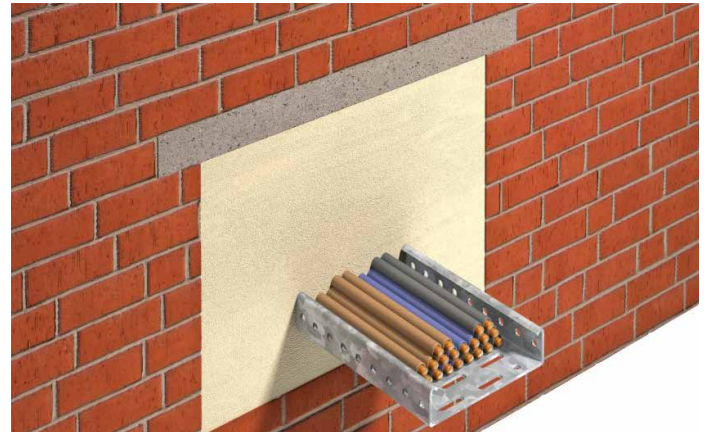


**Quelfire QF1 Fire Protection Compound** is a premixed inorganic powder that is mixed with water on site to produce a fire protection compound that is used in service penetrations seals. QF1 is London Underground approved and is deemed a “softer” compound and is primarily used around electrical services through both floors and walls as it can be easily re-penetrated.



QF1 Fire Protection Compound used in fire compartment floor penetrated by services



QF1 Fire Protection Compound used in fire compartment wall penetrated by services

## FEATURES & BENEFITS

- ✔ Approved for use on the London Underground
- ✔ London Underground Product ID: 2424
- ✔ Fire tested to BS476: Part 20: 1987
- ✔ Regarded as a “soft” compound and can be easily re-penetrated for additional services.
- ✔ The use of extensive shuttering is not required
- ✔ Often used in conjunction with QF4 (a “harder”) compound as per LUL details

## COMPOSITION

Quelfire QF1 Fire Protection Compound is a premixed inorganic powder consisting of lightweight aggregates, inorganic binders and gypsum cement supplied in 20kg bags. It is mixed with water on site to produce a fire protection compound that is used around services through fire compartment floors and walls.



LUL approved. London Underground Product ID: 2424

## APPLICATION / INSTALLATION

Quelfire QF1 Fire Protection Compound is one of 2 Quelfire compounds currently approved for use on the London Underground network – the other product being QF4. QF1 is regarded as a softer compound and is generally used around cable penetrations. QF1 can potentially be penetrated very easily to install additional services making it very popular. Quelfire have limited test evidence for the product so technical support for this product is very limited and the QF1 is regarded as a product rather than a system. Instead the product tends to be tested directly by London Underground and their approved contractors, often without Quelfire knowledge so we recommend that you consult London Underground to establish how the product should be used.

QF1 is supplied in 20kg bags and should be mixed in a clean container or mixer with approximately 6 litres of clean water per bag by slowly adding the dry powder to the water while stirring by hand or power mixer to ensure a smooth lump-free mix.

The opening should be clean and dust free and can be pre-wetted. A temporary (or permanent shutter) should be considered and fitted then the QF1 can be poured or trowelled into position to the correct depth and smoothed off ensuring all gaps and voids are fully filled in accordance with the approved detail.

Any excess residue should be cleaned from services and surfaces and once cured, any temporary shutters can be removed.

## PHYSICAL PROPERTIES / HANDLING

<b>Colour</b>	Grey
<b>Gross density (wet mortar)</b>	1.200 ± 100 kg/m <sup>3</sup>
<b>Gross density (dry mortar)</b>	≥ 900 kg/m <sup>3</sup>
<b>Pressure resistance</b>	≥ 2.5 N/mm <sup>2</sup>
<b>Consumption</b>	6 - 7 l water + 20 kg dry mortar ≈ 20 l ready-to-use wet mortar ≈ 20 l volumes after curing time

Surfaces must be firm and free from adhesion-reducing substances and dust. Absorbent surfaces are to be pre-wetted with water.

<b>Application temperature</b>	> +5 °C
<b>Application time app</b>	4 - 5 hours
<b>Fully cured time</b>	app. 28 days

## YIELD

One square metre at 150mm thickness requires approx. 8 x 20kg sacks of QF1 Fire Protection Compound and will provide a 2 hour rated fire seal.

## PACKAGING AND STORAGE

Supplied in 20kg bags which must be stored in cool and dry conditions. Shelf life is approximately 12 months.

### Technical Support & Guidance:

Should you require any further information regarding this product, please do not hesitate to contact the technical department at Quelfire Ltd.

Tel: **0161 928 7308**. Email: [technical@quelfire.co.uk](mailto:technical@quelfire.co.uk)

Please be aware that this document is intended for general information only and all details should be checked against all relevant supporting test evidence, certification and installation guidelines.

Use of alternative components or deviations from the instructions in any way is likely to mean that the installation will not comply with the assessed rating.

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