



MADEIRA



FIRE FIGHTER 40

POLYNEON FR

Flame-retardant and
hardly flammable embroidery threads

www.madeira.com



Threads | Stabilisers | Accessories

Physical Properties

Product name	FIRE FIGHTER 40
Material	100% aramid
Temperature resistance on continuous use	< 175 °C
Change of state through permanent use	> 200 °C
Flare point	None
Melting point	None
Flashpoint	self-extinguishing
Decomposition temperature	> 420 °C
Self-ignition temperature	Non-flammable
Burning behaviour	Non-flammable
LOI (Limiting Oxygen Index)	~ 28

FIRE FIGHTER 40 contains fibres from the brand Nomex® of Du Pont®. Nomex® is a registered trademark of Du Pont®.

Product name	POLYNEON FR
Material	100% polyester filament
Temperature resistance on continuous use	120°C / 24h
Change of state through permanent use	80-120°C
Flare point	> 200 °C
Melting point	> 240 °C
Flashpoint	liquefies
Decomposition temperature	liquefies
Self-ignition temperature	> 450 °C
Burning behaviour	No afterburn, Smoke and gas formation possible
LOI (Limiting Oxygen Index)	~ 28



FIRE FIGHTER 40



POLYNEON FR

Our products help to meet the following standards:

Product name	FIRE FIGHTER	POLYNEON FR
DIN EN 469 Protective clothing for firefighters - performance requirements for protective clothing for firefighting	✓	✗
DIN EN ISO 14460 Protective clothing for racing drivers - protection against heat & fire - performance requirements and test procedures	✓	✗
DIN EN ISO 11612 (replaces EN 531) Protective clothing - clothing that protects against heat and flame	✓ (A, B & C)	✓ (D&E)
DIN EN 61482-1-2 K1 Electrical voltage - protective clothing against the thermal hazards of an electric arc	✓	✗
DIN EN 13034 K1 Protective clothing against liquid chemicals - performance requirements for chemical protective clothing with limited protection against liquid chemicals	✓	✗
DIN EN ISO 11611 Protective clothing for welding and related processes	✓	✓
DIN EN ISO 14116 (replaces EN 533) Protective clothing - protection against heat & flames - materials, material combinations and clothing with limited flame spread	✓	✓
DIN 4102 Part 1, B1 * Fire behaviour of building materials and components, e.g. curtains	✓	✓
STANDARD 100 by OEKO-TEX®, product class I		✓
STANDARD 100 by OEKO-TEX®, product class II	✓	
Colour selection	30	34

* or other national standards: NF P92 503.4.5, BS 5867, UNI 9177, NFPA701, IMO FTPC part 2

Properties and areas of application

When testing for adherence to testing standards for protective clothing, decorative and upholstery fabrics, always test the final product.

Please note that only the function of the finished workpiece is decisive for the end customer. We recommend that the entire product (embroidered textiles) is tested and certified accordingly.

FIRE FIGHTER has been tested in accordance with DIN EN ISO 15025.

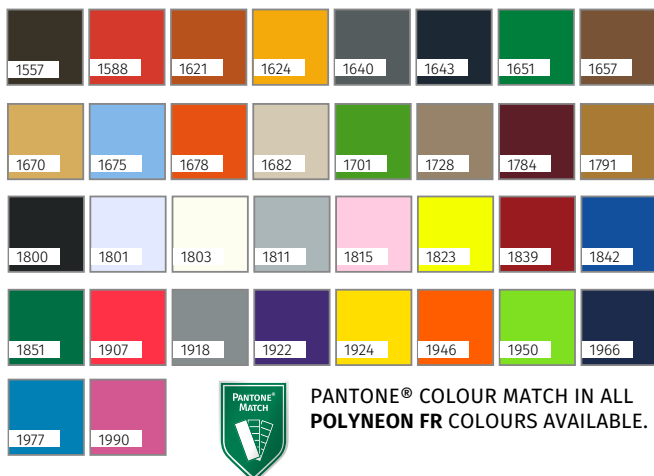
POLYNEON FR

Underthread

We recommend also using Polyneon FR (2,500 m cone) as bobbin thread or alternatively to use Fire Fighter bobbin thread (5,000 m cone).



POLYNEON FR available in 34 colours



For exact colour identification, please use the MADEIRA POLYNEON shade card.
Printed colours may differ from the original product.



FIRE FIGHTER PRODUCT SELECTION

To create heat-resistant embroidery, we recommend using the appropriate bobbin threads and backing:

FIRE FIGHTER UNDERTHREAD

The choice of bobbin thread is essential to ensure that the entire embroidery is flame retardant. It is necessary to use the corresponding MADEIRA 100% aramid underthread (5,000 m cones) together with FIRE FIGHTER upper thread.



FIRE FIGHTER EMBROIDERY BACKING

Hardly flammable embroidery backing for protective clothing. This light, breathable, dimensionally stable and tear-resistant fabric combines maximum comfort with maximum safety.



FIRE FIGHTER SPECIAL SCISSORS

Cut with the highest precision and remain free of abrasion for longer.



FIRE FIGHTER 40 available in 30 colours



For exact colour identification, please use the MADEIRA POLYNEON shade card.
Printed colours may differ from the original product.

FIRE FIGHTER 40

100 % aramid



△ Max. 20g active chlorine / l - max. 30 ° C - max. 30 min.



Art. No. 922
10 x 950 m



Art. No. 929
10 x 2.500 m



dtex 130 x 2
den 120 x 2



75/11 - 80/12



30 COLOURS



POLYNEON FR

100 % Polyester filament



△ Max. 20g active chlorine / l - max. 30 ° C - max. 30 min.



Art. No. 933
10 x 2.500 m



dtex 135 x 2
den 120 x 2



60/8 - 75/11



30 COLOURS
4 FLUORESCENT
COLOURS

NEW:
DIN EN ISO
11612 D + E certified



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