

**FY-COMPOSITES**



## **COMBAT HELMETS AND VISORS**

**Performance with Comfort**







# Helmets

FY-Composites has long experience in manufacturing composite combat helmets. Our helmets are designed to give their users the best possible protection against fragments and bullets in diverse battle situations. Their extensive protection area, high energy absorption capacity, extreme strength and minimal deformation i.e. trauma after a hit all contribute to form a unique combination of safety factors.

The comfortable inner liner makes it possible to wear the helmet for long periods at a time. The liner, which is made of non-irritating materials, can be comprehensively adjusted to ensure maximum comfort for individual users. The three-point-fastened straps keep the helmet stable even when its wearer is running or taking cover. The inner liner also alleviates the force on its user's head and neck when the helmet takes a hit.

Our helmets are not only comfortable, but compatible. They are designed for use with various hearing protection and communication systems, as well as with gas masks.

The helmet edge is sealed by a cast polyurethane band, designed to prevent the moisture-sensitive aramid material from absorbing any humidity.

We have also manufactured numerous special helmet models to meet customer specifications. Modifications are no problem for us.

## Visors

The practical visor retaining system gives wider options for helmet utilization. It is easy to attach the visor to the basic helmet, and remove it, without any need for tools. Our assortment of different visor types serves diverse needs.

## Testing

The ballistic performance of our products is tested regularly at the Finnish Defence Forces Research Centre to eliminate casual variation. The test results are available for the customer upon request.

## Accessories and After-sales

Should the customer require it, our after-sales service provides life cycle support, and arranges spare parts supply and long-term maintenance. We also offer various accessories to supplement our product range – e.g. helmet and visor covers, and carrying bags available in several colors and models.

If you can't find the information you need in this brochure, please don't hesitate to contact us. We will be pleased to provide further information.





# FH-580

Protection area	1200 cm <sup>2</sup> (M size)
Fragment endurance	STANAG 2920 (equivalent to MIL-STD-662E) v <sub>50</sub> value > 580 m/s
Bullet endurance	NIJ-STD-0106.01 > 420 m/s for 7.5 g FMJ bullet
Total weight and sizes	S, head size 52-58 cm, 1000±50 g M, head size 56-62 cm, 1100±50 g L, head size 60-64 cm, 1200±50 g
Colour	Olive green, customized colours available
Reflection	750 - 950 nm, 20 - 35 %
Gas endurance	Mustard gas
Chemical endurance	SFS 3566 "Anti Corrol" gun oil, Petrol, Motor oil, Grease
Inflammability	ISO 3873/SFS 2466, SFS 2465 Propane gas flame
Endurance of napalm	ISO 3873/SFS 2465 20 ml of burned napalm
Impact resistance	EN 397 < 5 kN





# FH-610



1300 cm <sup>2</sup> (M size)	Protection area
STANAG 2920 (equivalent to MIL-STD-662E) v <sub>50</sub> value > 610 m/s	Fragment endurance
NIJ-STD-0106.01 > 420 m/s for 7.5 g FMJ bullet	Bullet endurance
S, head size 52-58 cm, 1250 ± 50 g M, head size 56-62 cm, 1350 ± 50 g L, head size 60-64 cm, 1450 ± 50 g	Total weight and sizes
Olive green, customized colours available	Colour
750 - 950 nm, 20 - 35 %	Reflection
Mustard gas	Gas endurance
SFS 3566 "Anti Corrol" gun oil, Petrol, Motor oil, Grease	Chemical resistance
ISO 3873/SFS 2466, SFS 2465 Propane gas flame	Inflammability
ISO 3873/SFS 2465 20 ml of burned napalm	Endurance of napalm
EN 397 < 5 kN	Impact resistance





# Visors

FY-Composites' visor retaining system is suitable for facial protection in a wide variety of situations, including mine clearance, explosives handling and disposal, and police operations. The system fits several common helmet models and no tools are needed for mounting. The visor can be locked in three different positions.

Balancing weights at the back of the retaining system balances the visor and makes it more stable and comfortable to use. The mass of the weights depends on the weight of the visor itself.

These high quality facial shields are designed for different levels of protection, which naturally correlates with their thickness and weight:



<b>Mine clearance</b>	8 mm thick against fragments, $v_{50}$ value > 280 m/s (1.1 g FSP, STANAG 2920). Height 205 mm. Weight 1300g. Designed to fit inside the collar of a mine clearance suit.
<b>Police</b>	8 mm thick against fragments, $v_{50}$ value > 280 m/s (1.1 g FSP, STANAG 2920). Height 155 mm. Weight 1100 g.
<b>Riot</b>	4 mm thick with quite low ballistic performance. Made to protect user from hits and low velocity flying objects. Height 205 mm. Weight 900 g.
<b>9mm bullet</b>	Stops 9 mm bullet (8.0 g, FMJ, hit velocity 390 m/s). Thickness 15 mm. Weight 1550 g.
<b>Night vision visor</b>	Special model compatible with a particular type of night vision goggles (Patria VV2000), which can be fixed to helmet by means of our visor retaining system. Visor design accords with the type of night vision goggles.



# FY-COMPOSITES

## Quality

FY-Composites Oy's certified quality system conforms to the ISO 9001 and AQAP 2110 standards. The certificates cover development, design, manufacturing, installation, after-sales service and the marketing of composite structures and products.



AQAP 2110  
certified firm

[www.fy-composites.com](http://www.fy-composites.com)

**FY-Composites Oy**  
Nosturikatu 7  
FI-37150 Nokia  
Finland

tel. +358 3 342 9900  
fax +358 3 342 9914

[contacts@fy-composites.com](mailto:contacts@fy-composites.com)  
[www.fy-composites.com](http://www.fy-composites.com)