# User manual for SCHUBERTH safety helmets

Congratulations! You have made an excellent choice with this safety helmet. The helmet conforms to the requirements of DIN EN 397 and is a SCHUBERTH quality product that has been specifically developed for the particular application. Safety helmets are personal protective equipment and help to prevent head injuries or at least to reduce them significantly. The protective function of the helmet is only fully effective if it fits optimally and the headband is adjusted to fit the head. Please take time to read through this manual carefully in order to get the best protection from your helmet.

**Adjusting the headband**

1. Adjusting to a smaller head size:
   Simply slip the two ends of the headband at the nape together to the required head size.
2. Adjusting to a larger head size:
   Gently press the headband at the two points marked "press" and pull the two halves of the headband apart to the required head size.

**Adjusting the wearing height of the helmet**

The interior fitments can be adjusted to change the wearing height of the helmet. To do this, move the fastening parts of the headband higher or lower in the carrier elements of the spider.

**Care instructions**

Clean the helmet shell and interior fitments with lukewarm soapy water. Replace sweatbands if required. Do not use solvents (e.g. cellulose thinners). Correct cleaning, care and treatment of the safety helmet are essential to guarantee its full function.

**Modifications to the helmet**

Note! Your helmet conforms to current standards in its supplied state and therefore should not be modified or fitted with non-standard parts. Incorrect or non-standard interior fitments, holes drilled subsequently for accessories, and other modifications to the safety helmet will impair the protective function and make the approval invalid. Only replacement parts and accessories that are specifically made for the safety helmet should be used. In case of doubt, please contact us directly.

**Replacement parts and accessories**

Only SCHUBERTH original replacement parts and accessories should be used. As replacement parts, we supply interior fitments, sweatbands and chinstraps. Accessories are available for eye, face and hearing protection and protection against the weather.

**Hearing protection**

Adaptable ear defenders are available for some SCHUBERTH helmet models. Only use ear defenders that are explicitly suitable for use with your helmet. For information on this and explanations on the use, operation and features of ear defenders, please refer to the respective user manual.

**Usable life**

With an item of personal protective equipment, the minimum service life to be expected (from date of manufacture) limits the usable life. This applies even if the average service life, as with duroplastic materials, is substantially more than this.

**Duroplastic helmet shells:** Duroplastic helmet shells are not affected by sunlight (UV rays) and have excellent resistance to ageing (low brittleness). The usable life of these helmets is largely limited by mechanical damage*. Schuberth helmets of phenolic resin/textile (code PF-SF) or other duroplastic material (e.g. PAA-NF) should be used for no more than 8 years and helmets of glass-reinforced plastic (UP-GF) no longer than 10 years.

**Thermoplastic helmet shells:** Thermoplastic helmet shells are more sensitive to UV than duroplastic helmets. They should therefore be examined regularly. If you can hear cracking sounds when you press the helmet shell together or bend the peak of the helmet, this indicates that the helmet shell is becoming brittle. In this case the safety helmet should no longer be used and should be destroyed. Schuberth helmets of thermoplastic material should be used for no more than 4 years.

When defining the usable life of your helmets, make sure you observe the relevant regulations that apply in the country in which the helmet is used and also recommendations of responsible institutions on the usable life of safety helmets.

* this includes hairline cracks in the surface structure that in some circumstances can in conjunction with moisture cause a gradual fatiguing of the helmet shell

**Notes on use**

Correct handling of the safety helmet is essential to ensure that it functions perfectly. Check the helmet shell and interior fitments regularly. If you find any damage, you should replace the helmet. After a heavy impact, the safety helmet should no longer be used. This applies even if the safety helmet shows no visible damage.

**Guarantee**

Provided the helmet has been used properly, SCHUBERTH guarantees the helmet for a period of 2 years in relation to material and manufacturing defects. The helmet must not differ from the original state and and/or be damaged through improper use. Any application not constituting proper use is excluded and releases Schuberth GmbH from any liability.

**Storage and transport**

Safety helmets should be stored in a safe place under cool and dry conditions. Do not store the helmet in direct sunlight. The helmet can be transported in its original carton provided it is adequately wrapped in packing paper.

**Applications and versions of safety helmets and their codes**

All safety helmets are marked with their date of manufacture, code of the material used, type, size and codes for additional safety requirements:

**Explanation of material codes**

Thermoplastic helmet shell material:

ABS = Helmet shell of acrylonitrile-butadiene-styrene copolymer
PC = Helmet shell of polycarbonate
HDPE = Helmet shell of high density polyethylene
PA = Helmet shell of polyamide





Duroplastic helmet shell material:

UP-GF = Helmet shell of glass fibre/polyester
PF-SF = Helmet shell of phenolic resin/textile
PAA-NF = Helmet shell of natural fibre aniline acetate resin

The codes for the helmet shell material are located under the peak.

| Explanation of codes for additional safety requirements: | Coding: |
|---|---|
| **Very low temperature (in accordance with DIN EN 397)**<br>-20° C = helmet for use in low temperatures (e.g. outdoors in severe cold)<br>-30° C = helmet for use in cold stores, for example | -20°C or -30°C<br>depending on the case |
| **Very high temperature (in accordance with DIN EN 397)**<br>Safety helmet intended for use in high ambient temperatures (e.g. furnace work). | + 150°C |
| **Electrical insulation (in accordance with DIN EN 397)**<br>Helmet intended to protect the wearer from brief unintentional contact with a conductor carrying an a.c. voltage of up to 440 volts. | 440 V AC |
| **Electrical insulation (in accordance with DIN 4840)**<br>Protective helmet that is intended for use when working on electrical systems that carry voltages of up to 1000 V. | 1000 V |
| **Molten metal (in accordance with DIN EN 397)**<br>Helmet intended for use involving molten metal (e.g. foundry work). | MM |
| **Lateral deformation (in accordance with DIN EN 397)** | LD |
| **Forestry version (WPL)** | F |

# Additional information for helmets with integrated eye protection:

The eye shield meets the European standard DIN EN 166:1996 and offers appropriate mechanical protection from mechanical effects (e.g. metal chips on lathes and milling machines) and also against damage through small particles. The optical characteristics conform to Class 2.

**Removing the eye shield**

First pull the shield open as far as possible. Then press the two front plastic holders of the inner suspension (peak side) from below out of their guides in the helmet shell and withdraw these backwards through the cut-outs in the eye shield. Loosen the quick-action fasteners located outside on the shell with a coin or screwdriver and rotate by a quarter turn in an anticlockwise direction as far as it will go without force (caution: the quick-action fasteners can otherwise fall out). Remove fasteners and eye shield and store securely.

**Fitting the eye shield**

Slide the eye shield between the helmet shell and ring of the inner suspension. Insert the guide piece (pre-fitted to the eye shield) at one side into the hole intended for it in the helmet shell and push the quick-action fastener from outside through the guide until the head of the fastener lies fully against the helmet shell. Using a coin or screwdriver, rotate the fastener a quarter turn in a clockwise direction as far as it will go without force, while at the same time holding the guide piece in the position determined by the embossing until the fastener grips. Repeat this process for the other side. Finally, push the plastic holders of the inner suspension from inside through the cut-outs of the eye shield and into the ends of their guides in the helmet shell, then pull downwards until you hear them snap in place.

**Explanation of material codes of the eye shield:** AS 2 F K

AS = identification code of the manufacturer (Schuberth GmbH)
2 = optical protection class 2
F = ballistic resistance against flying particles with an impact energy of 45 m/s
K = surface resistance to damage through small particles

**Note:** The protective effect is only achieved when the eye shield is worn for the entire duration of the stay in the area in which the hazard in the form of damage to the eye or impairment to vision arises.

**Note:** There can be a risk to wearers using eye protection devices over normal correction glasses due to the transmission of shocks through objects striking the eye protection device. High temperatures reduce the visor's protective effect, and under these conditions protection from mechanical stress and impacting objects is not guaranteed.

**Cleaning**

On no account use petrol, oils, solvents or other aggressive materials for cleaning. Only use a soft cloth, a mild soapy solution or rinsing agent to remove dust, dirt or other impurities. A lint-free cloth or cleaning paper is recommended for drying the eye shield. Other cleaning agents can attack the coating and cause damage or impair vision. "Heliosept" can be used to disinfect the visor shield.

**Overall life and examination**
The overall usable life of the eye shield directly depends on the nature of the stresses it is exposed to. Therefore check the shield and its fastening regularly. In the event of visible damage or impaired vision (e.g. through scratches, cracks, matt areas, discoloration or dirt), replace the shield with a new one. The eye shield should not be used for more than 3 years.

**Note:** Alterations to the eye shield or its fastening (e.g. through the creation of holes or similar), will wholly or partially destroy the protective effect of the shield and any liability or guarantee of the manufacturer or supplier will become invalid.

**Storage and transport**
Eye shields should be stored in a safe and dust-free place under cool and dry conditions. Do not store the helmet in direct sunlight. The helmet can be transported packed in the polythene bag and cardboard box provided it is adequately wrapped in packing paper.

Subject to technical alteration.

## Coding for all helmet shells and interior fitments of the same type
**Helmet shell material: duroplastic**

**Industrial helmets:**

| | Coding of helmet shell | | | | Coding of interior fitments | |
|---|---|---|---|---|---|---|
| Model | Code letter | Size | Material code | Additional requirement | Code letter | Interior fitments 6- point suspension |
| BOP | D | 1,2,3 | UP-GF | LD; MM; +150°C* | l<br>m<br>w<br>r<br>f | I/79 GD<br>I/80 D<br>I/79 GW<br>I/52 RE NL<br>I/74 GD |
| BOP 74 R | E | 2,3 | UP-GF | MM; +150°C* | l<br>m<br>w<br>r | I/79 GD<br>I/80 D<br>I/79 GW<br>I/52 RE NL |
| BOP R | DR | 2 | UP-GF | MM; +150°C* | l<br>m<br>w<br>f | I/79 GD<br>I/80 D<br>I/79 GW<br>I/74 GD |
| SUP | F | 2 | UP-GF | MM; +150°C* | l<br>r<br>w | I/79 GD<br>I/52 RE NL<br>I/79 GW |
| BEN | A | 1,2,3 | PF-SF | LD; MM; +150°C* | l<br>m<br>w<br>r | I/79 GD<br>I/80 D<br>I/79 GW<br>I/52 RE NL |
| BEN 74 R | B | 2,3 | PF-SF | MM; +150°C* | l<br>m<br>w<br>r | I/79 GD<br>I/80 D<br>I/79 GW<br>I/52 RE NL |
| BEN R | AR | 2 | PF-SF | MM; +150°C* | l<br>m<br>w | I/79 GD<br>I/80 D<br>I/79 GW |
| BEN BioShield | A | 2 | PAA-NF | LD; MM | l<br>m | I/79 GD<br>I/80 D |

**Note:** *+150°C = Only for interior fitments I/79 GW (type w)



GB

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## Coding for all helmet shells and interior fitments of the same type
**Helmet shell material: thermoplastic**

**Industrial helmets:**

| | Coding of helmet shell | | | | Coding of interior fitments | |
|---|---|---|---|---|---|---|
| Model | Code letter | Size | Material code | Additional requirement | Code letter | Interior fitments |
| BER 80 | N | 2 | HDPE | -30°C; 440 V AC*<br>-30°C; 440 V AC*<br>-20°C; 440 V AC* | k<br>k<br>d | I/79 G**<br>I/79-4 G***<br>I/80** |
| BER S | M | 2 | HDPE | -30°C; 440 V AC*<br>-20°C; 440 V AC* | k<br>d | I/79 G**<br>I/80** |
| BER 80 GlowShield | N | 2 | HDPE fluorescent property | -30°C<br>-20°C | k<br>d | I/79 G**<br>I/80** |
| BER / ABS | M | 2 | ABS | -20°; 440 V AC* | k | I/79 G** |
| BES / ABS (L+K) | S | 1,2,3 | ABS | 440 V AC* | k<br>n | I/79 G**<br>I/80 B** |
| BES / AS 15P | S | 1,2,3 | ABS **** with antistatic property | 440 V AC* | k<br>n | I/79 G**<br>I/80 B** |
| SH 91 | SH 91 | 2 | HDPE | -30°C; 440 V AC* | SH 91 | I/91 G**<br>I/91-4 G*** |

**Construction site helmets:**

| | | | | | | |
|---|---|---|---|---|---|---|
| MasterGuard | N | 2 | HDPE | -30°C; 440 V AC*<br>-30°C; 440 V AC*<br>-20°C; 440 V AC* | k<br>k<br>d | I/79 G**<br>I/79-4 G***<br>I/80** |
| EuroGuard | EuroGuard | 2 | HDPE | -30°C<br>-30°C<br>-20°C | y / k<br>y / k<br>x | I/79 G Y **<br>I/79-4 G Y***<br>I/80 Y** |
| EuroGuard V+ [1] | F | | | | | |
| PIO / OBS | T | 2 | HDPE | -20°C; 440 V AC*<br>-20°C; 440 V AC* | k<br>d<br>k<br>d | I/79 G**<br>I/80**<br>I/79 G**<br>I/80 B** |
| SW 1-4 | V | 2 | HDPE | -30°C; 440 V AC* | t | I/4 G*** |
| Pionier | L | 2 | HDPE | -30°C; 440 V AC*<br>-20°C; 440 V AC* | k<br>d | I/79 G**<br>I/80** |

**Note:**

* 440 V AC = Only for helmet models without ventilation
** 6- point suspension (G = 3 headbands)
*** 4- point suspension (4 G = 2 headbands, no cross-band)
**** Helmet has anti-static properties. No hazards as defined in DIN EN 1127-1 (according to sections 5.3.7 and 6.4.7) originate from it. It can be used without hesitation in mining underground in potentially explosive rooms as defined by explosion group I and IIA, and above ground in potentially explosive rooms as defined by explosion group I and IIA, as well as I and IIB (according to tests by the PTB Physikalisch-Technische Bundesanstalt, Braunschweig).explosion group I and IIA, as well as I and IIB (according to tests by the PTB Physikalisch-Technische Bundesanstalt, Braunschweig).

[1] The "forestry worker" version (alternative marketing name: Euroguard V+) of the EuroGuard helmet type exceeds the maximum total ventilation area of 450mm² as defined in point 4.9 Ventilation of DIN EN 397. The increase in total ventilation area through the helmet peak vent has no negative effect on any of the tests required in DIN EN 397.