



GENERAL INFORMATION

Protective clothing is an interesting, steadily growing and developing market.

While in the past the protective properties were the main issue, modern functional textiles must fulfil perfect protective functions as well as wearing comfort and further properties.

Thanks to modern textile technology formerly used materials like leather, metal cloths etc. are being replaced by high-tech textiles or nonwovens with pleasant wearing properties and better protective function:

The applications for PPE (personal protective equipment) are numerous:

- weather protection
- welding protection
- flame retardancy and heat protection
- protection clothing for the metal industry
- protection from chemicals
- water- and oilrepellence
- multi-functional clothing for fire brigades and rescue services
- general outdoor working like forestry, construction etc.
- protection against electrostatic charge
- medical textiles

CHEMICAL REPELLENT AND WATER REPELLENT PROTECTIVE CLOTHING

Protection against water, oil, and all kind of chemicals on different fibres is an important issue.

Primarily wash-permanent finishes protecting from the mentioned liquids are requested.

The special product **TUBIGUARD**® **PROTECT-F** on fluorocarbon basis offers the necessary protection.

While water and oil repellency are standard properties, chemical protection is a special challenge considering that protection against concentrated and sometimes oxidising acids is requested.

FLAME PROTECTION CLOTHING

Flame protection clothing is an important issue in many different industries.

People working in the chemical industry or in various technical or electro-technical fields must wear flame retardant clothing.

Cotton is well proven in this field, because the pleasant physiological wearing comfort of the fibre is preserved despite flame retardant treatment.

The flame retardancy achieved by a special finishing process with **APYROL CEP-ECO** remains even after many industrial washes.

In combination with **TUBIGUARD® 31-F** the treated fabrics become water- oil- and chemical repellent at the same time.

PROTECTION FOR METAL PRODUCING OR METAL PROCESSING PROFESSIONS

- Protection against liquid metal splashes or flying sparks during welding is a special challenge in the field of protective clothing.
- ► For this application field there are smart coating solutions with **TUBICOAT MEA** as a paste coating.
- ▶ The result is protective clothing which is pleasant to wear, has a very high stability to washing and fulfils the highest safety requirements.

BREATHABLE WEATHER PROTECTION

Wearing comfort and breathability are very closely connected with one another in weather protection.

Breathability normally means for functional clothing waterproof and at the same time water vapour permeable.

These properties can be achieved by microporous stable foam coatings with e.g. **TUBICOAT MP-C** or by lamination with the **LAMETHAN system**, consisting of an adhesive component and a breathable membrane.

SILICONE COATINGS

For more coatings for protective workwear, please refer to the **TUBCOSIL** e-paper. (https://epaper.cht.com/)



