

Multilayer in service to save lives!

Lightweight but extremely rugged lifeboats and life rafts must meet the very highest standards. This challenged us to make a differentiated analysis of the various requirements, and it became clear that only a combination of three materials could provide an adequate solution.

A manufacturer of lifeboats and life rafts aimed to further improve the durability and usability of its products. Basic requirements included resistance to salt water, high resistance to ozone, very good vapour impermeability, high material strength, and good flame retardance. Due to the numerous demanding application parameters, it soon became clear that these requirements could not be met with classic materials or compounds.

Thus, a chlorosulphonated polyethylene rubber (CSM) was chosen for the outer shell, which meets the high requirements for good ageing and weathering resistance combined with flame retardance. In addition, this material has excellent chemical resistance and covers a temperature range from -20 °C to +100 °C.

Chloroprene rubber (CR) was chosen for the inner layer. This material is characterised by high tear strength, high tear propagation resistance, and



Multilayer – a reliable bond

good resistance to ageing, light, and ozone. It is therefore weather-resistant, but also flame-retardant, self-extinguishing, and above all has low vapour permeability.

A highly resilient polyester fabric was chosen for the core, which meets the high mechanical requirements.

This multilayer, designed for ocean rescue, can be produced in the desired total thickness of 5 mm.

All values given are average values and do not represent minimum or maximum values. Users must test suitability for their specific application.