



## GEAQUELLO® E 950 & CPS with Retrofit Modules

Sealing systems for use in shipbuilding - above and below the water line

### svt: Smart Solutions for All Your Needs

svt Products GmbH, based in Seevetal near Hamburg (Germany), is the international one-stop supplier of the certified fire protection systems and fire protection products manufactured by svt, AIK, Kuhn, Flamro, Odice and Securo. Under the roof of svt Group of Companies, these highly specialised manufacturers offer Europe's largest fire protection product and solution portfolio. The range stretches from ablative and intumescent fire protection coatings to sealing compounds and fillers; it also includes fire protection fabrics, fire protection bags and cable tubes (to name but a few). All fire protection components are not only highly versatile, but also very safety-efficient, and they are specially designed to withstand the extreme conditions in a fire and other impacts.

The internationally certified products and penetration sealing systems, which are marketed under the brand names of FLAMMADUR®, FLAMRO®, FLEXILODICE®, Firebreather™, GEAQUELLO®, KERAFIX®, PYRO-SAFE® and ROKU®, are sold by svt to customers in over 60 countries throughout the world. The extensive portfolio is rounded out by one-off solutions that are tailored to suit specific needs. All fire protection systems and products sold by svt Group of Companies are quality-assured by thorough in-house research and development, whereby continuous product evolution is a matter of course.

#### Research & Development

We boast six locations where ongoing research, development and production activities are conducted with a view to creating market-relevant innovations and extensions to existing systems. With six in-house fire testing furnaces and numerous service centres in place, we deliver on what we promise, so each customer can rightly expect us to provide the optimum solution in terms of efficiency, safety and fast response whenever and wherever needed. Regular quality control and inspection also matter to us, as does know-how transfer with scientific research institutes and universities. These priorities together form the strong foundation on which the innovation and progress of svt Group of Companies are built.



## Fire Protection for Ships and Offshore Facilities

When it comes to fire safety above and below the water line, your protection needs are in the best of hands with the svt Group of Companies! We have developed ship safety systems that are tailored to suit your needs and provide optimum protection. Our innovative products and systems safeguard offshore facilities and ships of any type and size.











#### **Tailormade solutions**

We are consistently striving to drive the development of customised fire protection solutions for industrial environments. Ships, for example, pose a variety of safety challenges because combustible surfaces (such as drive shafts) require special protection. We also deliver tried and tested fire protection doors, windows and glazings developed from our long-standing know-how and experience. Breaking waves, salt water, different weather conditions accompanied by temperature variations as well as UV radiation and chemicals exert continuous stress on ships and offshore facilities. We understand what you need, and we can help you with our decades-long experience in the field of fire protection on board – just contact us to set your course to safety!

#### The right product, every time

Whether it's sealing systems, coatings, fabrics or cable bandages: svt Group of Companies helps ships effectively through any waters. Application of our intumescent (foam-forming) fire protection coatings for cables and carrier systems does not in any way affect the cables' current-carrying capacity. As an extra option, we offer a protective varnish for use in areas that are subject to increased stress, e.g. chemical exposure.

We also supply a variety of highly resistant cold-curing sealing compounds based on polyurethane or epoxide resin. By the way, svt products and systems provide protection not only from fire, but also from electromagnetic pulses so that they comply with all EMC-related requirements. Our portfolio is rounded out by reliable installation and calculation tools.

»Preventive and passive fire protection has been our expert domain for over fifty years. We are both creators and implementers of high-performing systems that are recognised around the world.«

### GEAQUELLO® E 950 and CPS: One Design Principle for All Your Needs

All it takes to ensure fast, easy and safe installation of either of the two systems GEAQUELLO® E 950 and CPS is formwork and sealing compound. And there is even more good news: Both systems excel across the board because the size and geometry of the penetrants (round, oval, rectangular/square) is completely irrelevant: Also, the systems are approved for almost any cable and pipe material. Unlike systems from other manufacturers, GEAQUELLO® E 950 and CPS demonstrably do not require penetrants to be routed in an orthogonal manner, which further facilitates and speeds up application. GEAQUELLO® E 950 and CPS are both certified to SOLAS standards up to fire resistance class A-60. The systems offer enormous benefits in logistical terms, too: The calculation and purchasing process could not be easier, and the low storage space requirement adds another positive aspect.

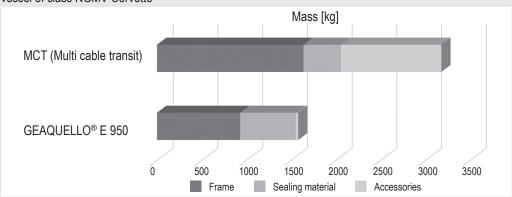
## The Classic Solution – GEAQUELLO® E 950 Sealing System

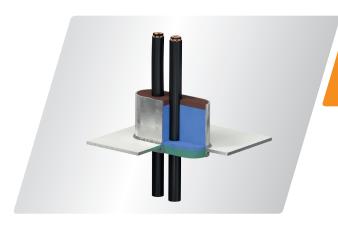
| Benefits          | <ul> <li>High penetration occupancy rate (up to 72.2 %)</li> <li>Flexible cable/pipe dimensioning and configuration</li> <li>Easy installation and retrofit</li> </ul>  |
|-------------------|---|
| Sealing<br>length | 180 mm  |
| Area of use       | <ul> <li>Above and below the water line</li> <li>Pipe and cable penetration sealing system<br/>certified to fire resistance class A-60 in<br/>accordance with IMO Resolution MSC 307(88)<br/>for bulkhead and floor penetration.</li> </ul> |
| Sealing compound  | GEAQUELLO® E 950 (pastel pink)  |



#### Weight Comparison of Waterproof Systems

Example calculation: Weight of all system components (476 penetrations) required for a vessel of class NGMV Corvette





# The New-Entrant Solution – GEAQUELLO® CPS Sealing System

|  | Benefits          | <ul><li>Short</li><li>Light-weight</li><li>Easy installation and retrofit</li></ul>   |
|--|-------------------|---|
|  | Sealing<br>length | 130 mm  |
|  | Area of use       | Above the water line     Cable penetration sealing system certified to fire resistance class A-60 in accordance with IMO Resolution MSC 307(88) for bulkhead and floor penetrations |
|  | Sealing compound  | GEAQUELLO® E 1000 (blue)  |

### Expertise to the Power of Two

The combined installation of GEAQUELLO® E 950 and CPS offers the following benefits:

- · Identical handling and use
- · Global approvals
- · Weight optimisation
- · Fast installation
- · Easy calculation
- · No smoke development

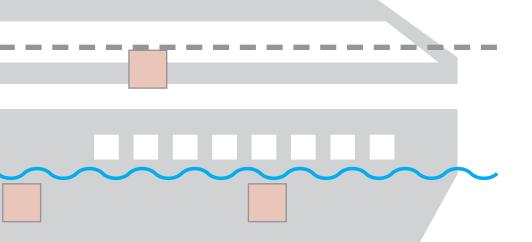
- · Low transport costs
- · No hazardous materials
- · No asbestos involved



## The Upgrade Solution – GEAQUELLO® E 234 Retrofit Modules

Start building a safe future today – with GEAQUELLO® E 234! These robust, moisture and humidity-resistant retrofit modules ensure hassle-free retrofitting of cables and pipes of any type. The modules serve as placeholders in penetrations protected with GEAQUELLO® E 950 or CPS sealing systems, and they form a stable insulation layer in the event of a fire. Thanks to the special sealing design, cable and pipe sheaths will not be strained in the retrofitting process.

Add to these benefits that the material of which the retrofit modules are made is not only easy but also fast to perforate – in fact, 5 to 10 times faster than the sealing compound proper. Once the retrofitting is done, our system component GEAQUELLO® E 234 T will ensure smooth process completion: Thanks to the handy cartridges, the remaining annular gap can be filled in a matter of only a few seconds.



#### Example positioning of the systems:

GEAQUELLO® E 950

GEAQUELLO® CPS

water line

### Diversity on 3 Pillars

Sealing compound, expansion modules, impregnation fluid: All it takes for fast and easy installation of cable and pipe penetration seals is these three basic components! By combining them with other products, you will obtain the perfect solution for your specific protection needs, whatever they may be!

#### System Components

#### **GEAQUELLO® E 950 Sealing compound**



3 kg pail (with measuring cup) 15 kg pail (with measuring cup) Art. no. 4145486-1

Art. no. 4145524-1



#### GEAQUELLO® E 1000 Sealing compound

3 kg pail (with measuring cup) 15 kg pail

Art. no. 4145527-1

Art. no. 4145487-1

(with measuring cup)



#### GEAQUELLO® R 312 / R 380 Retaining modules

200 modules, 120 x 25 x 6 mm 360 modules, 120 x 25 x 6 mm 25 modules, 800 x 25 x 6 mm Art. no. 4148143 Art. no. 4148143



#### **GEAQUELLO® E 824 Impregnation fluid**

 1 kg bottle
 Art. no. 4145152

 10 kg canister
 Art. no. 4145286

#### **Optional Components**



#### **GEAQUELLO® E 234 Retrofit modules**

| Ø 40 x 235 mm | Art. no. 4145500 |
|---------------|------------------|
| Ø 66 x 235 mm | Art. no. 4145502 |
| Ø 90 x 235 mm | Art. no. 4145504 |



#### GEAQUELLO® E 234 T 2-component sealing putty

345 ml cartridge Art. no. 4145512



FLAMMADUR® E 292 2-component sealing compound

1 kg tin Art. no. 4125671



FLAMMADUR® E 292 T 2-component sealing putty

345 ml cartridge **Art. no. 4146603** 



#### FLAMMADUR® A 386 2-component sealing compound

1 kg tin Art. no. 4146315

#### **Installation Tools**



#### Spray attachment

for a 1 kg bottle of GEAQUELLO® E 824 Art. no. 4007573



#### Pump P002

Impeller pump for cordless screwdrivers Art. no. 4248165

#### svt Products GmbH

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