

# PROTEGO® Coated Devices

## Customized Products for Difficult Applications

### Chemical products

such as styrene, acrylic or chlorine in a moist environment frequently cause problems, like polymerization and corrosion in production processes and storage.

*Detonation flame arrester  
PROTEGO® DA-SB*



*Pressure/Vacuum Relief  
Valve, In-line  
PROTEGO® DV/ZU*

### Polymerization

is an especially serious challenge for substances such as styrene monomer, which has a tendency to polymerize if heated, exposed to light, or when it comes into contact with oxygen, oxidants and strong acids. The transport, storage and processing of substances which polymerize present a difficult challenge due to the sticky polymere adhering to system parts.

### Corrosion

is destructive in systems dealing with strong acids and bases; valves used in chlorine based media severely corrode when exposed to a moist environment.

### Protective Systems

which are lined or coated with plastics provide an inexpensive alternative to high alloy metalles (e.g. Hastelloy C or B) devices.



*for safety and environment*



← Detonation flame arrester PROTEGO® DR/ES

### ECTFE-coated flame arresters

are available in widely varying designs as deflagration and detonation flame arresters for the various explosion groups in the nominal width DN 50 to DN 1000. The ECTFE-coated detonation flame arresters, which could be installed, for instance, in the vapor collection line of a storage tank filled with styrene. The purpose of this detonation flame arrester would be to protect the tank from a flashback from any exhaust air cleaning or incinerator system which may be connected to it. The major advantage of the coated devices in comparison with conventional types is the substantial extension of the servicing intervals and the maintenance friendly design.

### Valves bodies with PFA-lining, ECTFE-coating, or with PTFE seats and PTFE valve pallet

have been developed to meet process requirements. The valves which can be used in aggressive gases or electrically charged exhaust air and which offer minimum leakage, frequently with very low response pressure.



Diaphragm valve PROTEGO® UB/SF  
background: PTFE flame filter disc

### Benefits/Advantages

The outstanding properties of these plastics provide beneficial advantages that include:

- **wide temperature range** (provided there is no dynamic stress, PTFE / PFA can be used at temperatures ranging from -200°C to +250°C; FEP from -100°C to +205°C; ECTFE from -76°C to +150°C, all according to manufacturer's information)
- **high degree of chemical resistance** (to almost all organic and inorganic compounds in both the acidic and alkaline ranges)
- **good resistance to pressure**
- **high mechanical stability** (for PFA--good shape retention, good physical properties even at high temperature and high chemical resistance)
- **anti-adhesive**
- **resistance to wear**
- **excellent resistance to weathering**
- **cost effective solution**

Coated PROTEGO® flame arresters and valves guarantee superior function of various devices used for systems handling products such as styrene, acrylates or media containing chlorine in moist areas with considerable cost advantages.

**PROTEGO® Head Office**  
**Braunschweiger Flammenfilter GmbH**  
 Industriestrasse 11  
 38110 Braunschweig  
 phone: +49 (0) 5307 / 809-0  
 fax: +49 (0) 5307 / 78 24  
 e-mail: office@protego.de

web: [www.protego.com](http://www.protego.com)



for safety and environment