

Thioplast™ - The leading Brand in Polysulfides

AkzoNobel



Thioplast™ – The Products

Thioplast™ liquid polysulfide resins are aliphatic, liquid polymers. Their thiol end-groups react with a variety of curing agents to form a macro molecular network.

During the curing process at ambient temperature cross-linked and rubber-like polymers are formed, that show excellent resistance to weathering, water, UV-light, ozone, oils, fats, gasoline, solvents, alkali, diluted acids and many other chemicals.

AkzoNobel produces two product lines under the Thioplast™ brand:

- Thiol- (SH-) end-group modified polysulfides (Thioplast G-types)
- epoxy end-group modified polysulfides (Thioplast EPS-types)



Keeping the warmth inside...

Did you know that polysulfide sealants are the most popular and widely used sealants in insulating glass worldwide? It's the unique combination of chemical and physical properties that make it the industry's first choice. Thioplast™ produced by AkzoNobel is the leading product used to make polysulfide sealants that save energy and thereby help to reduce climate-changing greenhouse gases.

Thioplast

by **AkzoNobel**

Thioplast™ G

Thiol- (SH-) modified polysulfide polymers for sealants

Elasticity and pronounced chemical resistance are the key properties of our thiol- (SH-) modified cured Thioplast™ G. Therefore, they are ideally suited for the most important application as base polymers for sealants. Additional benefits: Thioplast™ G can be used among almost any curing conditions and the product's physical properties can be easily adapted to specific application requirements.

Application areas:

- Manufacturing of insulating glass
- Construction
- Marine and aircraft sealants
- Coatings (e.g. concrete coatings)
- Molding compounds
- Electrical potting compounds
- Modification of epoxy resins and rubbers
- Leather impregnation
- Grinding wheel binder

AkzoNobel currently manufactures nine types of Thioplast™ G which differ in molecular weight (chain length) and degree of branching. This product range will meet requirements for nearly all applications. Specific, tailor-made polymers can be produced on special request.

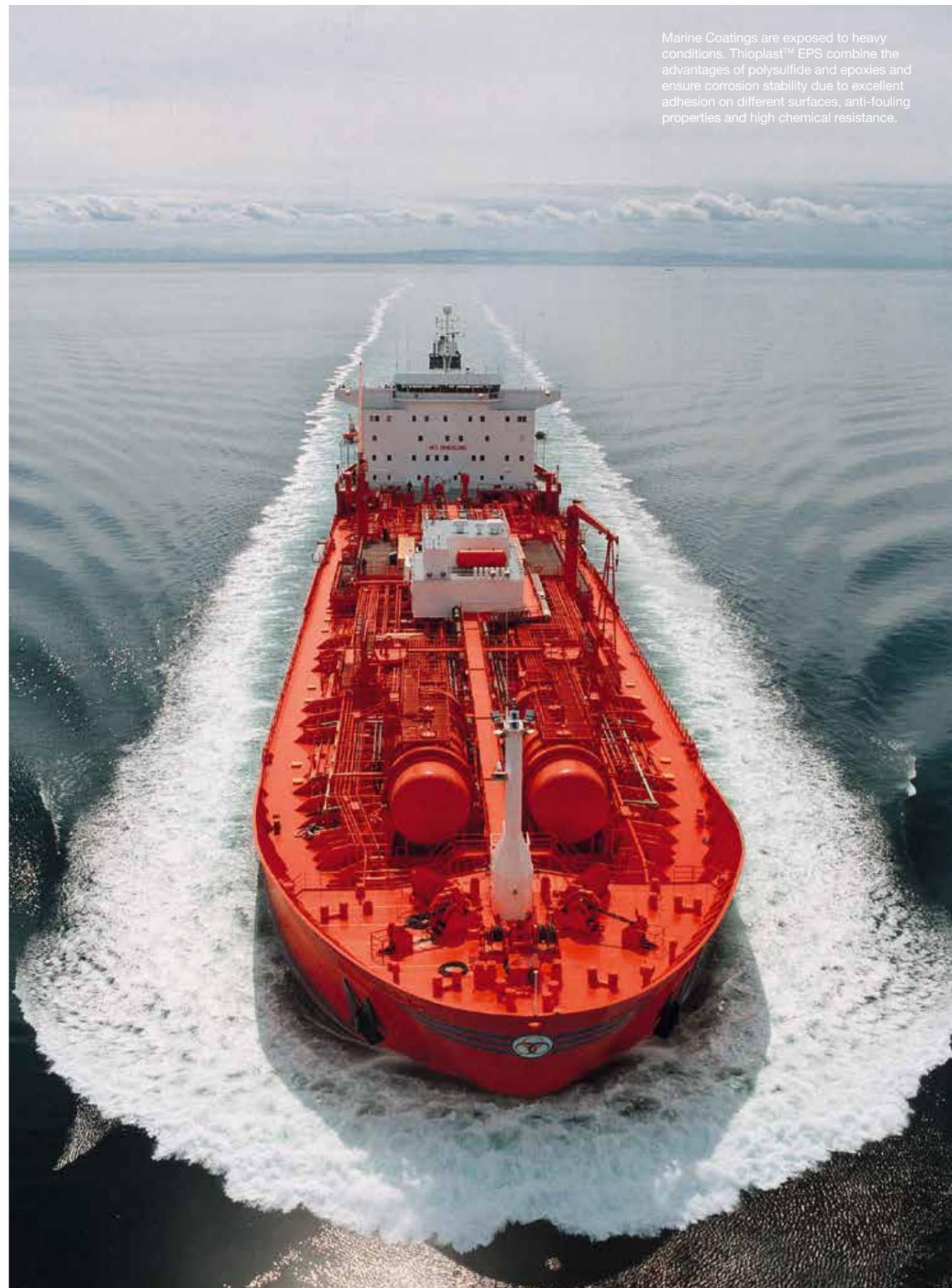
Thioplast™ EPS

Epoxy-modified polysulfide polymers for coatings and adhesives applications

EPS-type Thioplast™ are epoxy terminated, low viscosity polysulfide resins. The epoxy termination of the polysulfide structure results in a unique polymer which combines the excellent properties of Thioplast™ G with those of epoxy resins, including:

- Excellent adhesion to most surfaces
- Chemical resistance to many diluted acids, alkalis and solvents
- Mechanical stability and durability
- High-speed curing at ambient temperature

Thioplast™ EPS resins are used in adhesives for steel, aluminum, concrete and automotive applications. They also form important components of anti-corrosive and marine coatings, coatings for chemical plants, as well as mechanically and chemically stressed coatings. Depending on the application, Thioplast™ EPS can either be used on its own or in combination with conventional aromatic A/F-glycidyl ethers, novolacs and other epoxies.



Marine Coatings are exposed to heavy conditions. Thioplast™ EPS combine the advantages of polysulfide and epoxies and ensure corrosion stability due to excellent adhesion on different surfaces, anti-fouling properties and high chemical resistance.



Thioplast™ The Business

Thioplast™, the liquid polysulfide polymers of AkzoNobel, are key ingredients in the manufacture of sealants, coatings and adhesives. The products show excellent resistance to weathering, water, oils, fats, fuels and numerous other chemicals and solvents.

Because of these unique properties, Thioplast™ is ideally suited for the production of sealing compounds and protective coatings, for a variety of applications in construction, aircraft and marine industries and in the manufacture of insulating glass.

AkzoNobel's Thioplast™ liquid polysulfide resins are produced in Greiz (Thuringia, Germany). The Greiz site is a leading center for liquid polysulfide polymers with an annual production capacity of more than 18.000 tons. AkzoNobel is the global market leader in liquid polysulfides.

The production site in Greiz is certified according to EN ISO 9001 and EMAS/EN ISO 14001.

Thioplast™ helps sealant manufacturers fully meet and exceed the uncompromising standards of the aerospace industry. You'll also find polysulfide based sealants performing exceptionally in other

demanding construction sealant applications such as gas stations, bridges, facades and runways. Thioplast™ is also used in the production of printing blankets, grinding systems and coatings.



The floor coating has to withstand organic solvents, diluted alkali and acids and large changes in ambient as well as spot temperatures.

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AkzoNobel is a leading global paints and coatings company and a major producer of specialty chemicals. Calling on centuries of expertise, we supply industries and consumers worldwide with innovative products and sustainable technologies designed to meet the growing demands of our fast-changing planet. Headquartered in Amsterdam, the Netherlands, we have approximately 46,000 people in around 80 countries, while our portfolio includes well-known brands such as Dulux, Sikkens, International, Interpon and Eka. Consistently ranked as one of the leaders in the area of sustainability, we are committed to making life more liveable and our cities more human.

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