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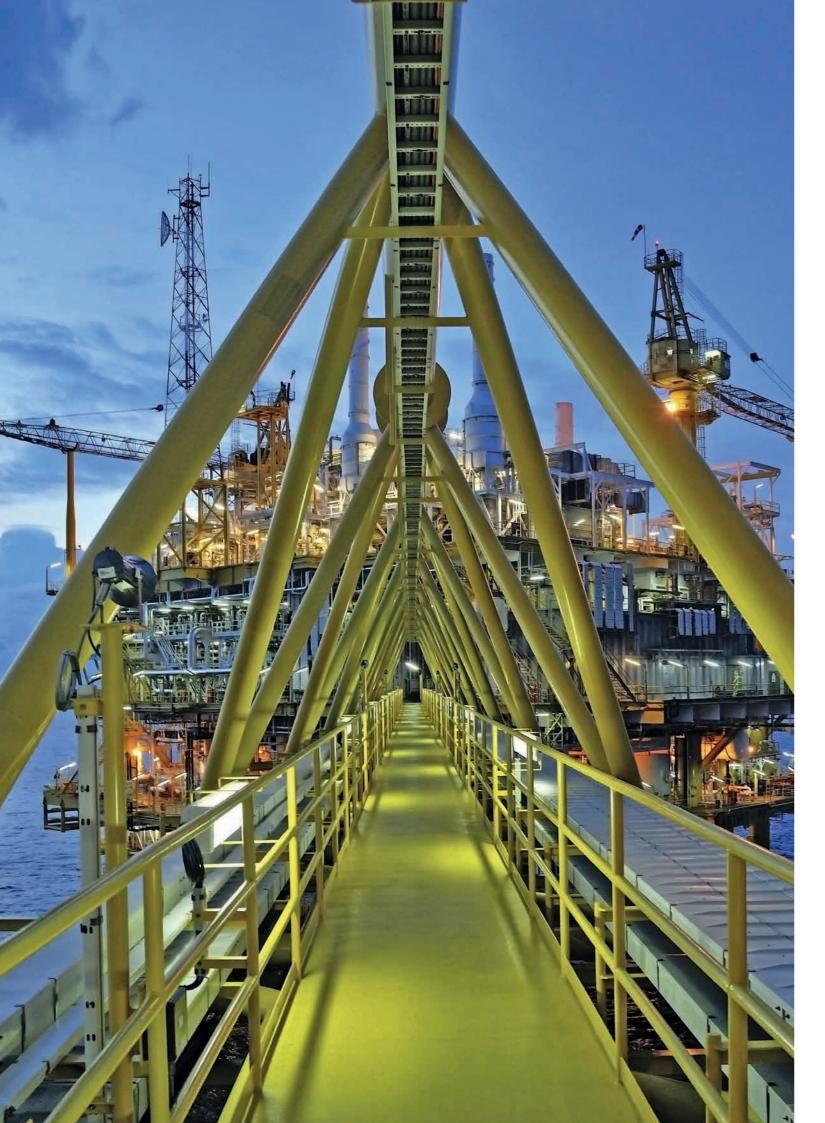
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Chlorinated Rubber for Corrosion Protection Coatings and Contact Adhesives

Pergut®





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Building blocks for efficiency, supply security and sustainability

Solutions to enhance your process efficiency

Nowadays, the quality demands made on industrial processes are very high. But at the same time, there is a clear need to cut costs. Both goals can be achieved by increasing process efficiency. The complexity of the processes involved in manufacturing coatings and adhesives offers us various opportunities to enhance process efficiency. Significant process-optimizing and cost-cutting gains are possible, for example through faster curing and shorter process times. At Covestro we have a enabling sustainability along the value chains. wide range of solutions designed to enhance your process efficiency. Why not take advantage of our know-how? These solutions will be good for your bottom line.

Outstanding quality and supply security -

Covestro, the world's leading manufacturer of aliphatic and aromatic isocyanates, offers an extensive range of raw materials and services for manufacturers of coatings and adhesives. This allows the very latest technology to be used extremely effectively for a variety of applications. Thanks to its unique setup and worldwide network of state-of-the-art production sites, R&D facilities and customer technical centers, industry-leading supply chain setup, global orientation and local

stocks, extremely large product portfolio, highest health, safety and environmental (HSE) standards, as well as tailored supply chain flexibility with short lead times, Covestro offers the industry unrivaled supply security and assured quality.

High coating performance - enabled by nature

Sustainability drives innovation at Covestro. We are committed to optimizing our manufacturing processes, reducing the impact of logistics, and Renewable feedstocks offer opportunities for developing more sustainable building blocks for coatings and adhesives - with significant potential for reducing the carbon footprint of end products while also reducing our overall dependence on fossil-based resources. But to make more sustainable solutions not just possible but also economically feasible, the performance of all our feedstocks needs to satisfy high industry standards. To this end, we are evaluating the use of renewable raw materials and will enlarge our product portfolio with new bio-based and mid- to long-term cost-competitive products, provided the raw materials become commercially available. In all these efforts we are committed to focusing on products that perform at least as well as established products but are at the same time more sustainable.













Pergut®: High quality for a wide range of applications

Pergut® is Covestro's trade name for a group of coating and adhesive raw materials based on chlorinated rubber. The various Pergut® grades can be put to versatile use in a broad range of applications.

As a binder in premium anti-corrosion coatings, Pergut® impressively combines good adhesion properties on numerous substrates with easy processability and high resistance qualities. Additional coating applications for Pergut® include roadway markings, printing inks, and swimming pool paint.

When Pergut® is used in solventborne contact adhesives, it increases bond strength. As an adhesive system in its own right, Pergut® can be used as a durable rubber-to-metal adhesive.

As safe as you can get

Pergut® is manufactured in Dormagen, Germany, in one of the most modern production facilities for chlorinated rubber. A special Covestro proprietary manufacturing process ensures an extremely low content of carbon tetrachloride (CCl4) in the product. With a CCl4 content of < 0.005 % pbw (≤ 50 ppm), customers are supplied with unique products that meet all global legal regulations.









Pergut® for coatings: Simple and good

As a raw material for coatings, Pergut® offers a wide range of beneficial properties that are advantageous in a wide range of applications:

Beneficial properties:

- · Easy processing and fast drying
- Good adhesion to metals (steel, iron, zinc) and mineral substrates
- Excellent repaintability even after many years
- High corrosion resistance
- Resistant to chemicals, acids/ bases, water and saline solutions
- Resistant to environmental influences

- Suitable for anti-fouling coatings
- Soluble in many solvents
- Good compatibility with numerous resins, polymers, plasticizers, pigments, and fillers
- High paint storage stability in closed containers
- One-component application
- Resistant to bacteria, mold and fungus

Applications:

- Solventborne, fast-drying corrosion protection coatings and floor coatings
- Suitable as a primer, intermediate coat or topcoat in indoor and outdoor applications
- Roadway markings and signal colors
- Swimming pool paint
- Printing inks











Pergut® for adhesives: Strong and durable

As a raw material for contact adhesives, Pergut® offers a number of useful properties that are beneficial in adhesive applications:

Beneficial properties:

- Easy processing
- Very high initial strength and adhesive strength
- Suitable for rubber-to-metal bonding
- Improves resistance to ozone, mineral oils, chemicals, weathering, and thermal exposure
- Leads to light-colored, phase-stable adhesives in resin-free formulations
- High chemical resistance to acids/bases and saline solutions
- Good compatibility with numerous resins, polymers, plasticizers, pigments, and fillers
- Good solubility in various solvents

Applications:

- Joining elastomers with metals and other materials under vulcanization conditions
- Optimizing adhesive properties in solventborne contact adhesives, e.g. in the automotive, building and DIY industries, and for bonding furniture and shoes



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Pergut® products to meet your needs

		VISCOSITY @ 23 °C* IODINE COLOR* CHLORINE CONTENT [MPa·s] [WT. %]						CONTAINER COATINGS			ROAD MARKING	SWIMMING POOL COATINGS			HOT SEAL COATINGS
Grade		CCI ₄ CONTENT [WT. %]		TOLUENE CONTENT [WT. %]		RAW MATERIAL	\$			ANTI FOULING		CONCRETE PRINTIN COATINGS INKS		PRINTING INKS	
Pergut® S 5	5 ± 1.5	≤ 0.005	≤ 7	≤ 2.5	≥ 64.5	Polybutadiene									•
Pergut® S 10	11 ± 2	≤ 0.005	≤ 7	≤ 2.5	≥ 64.5	Polyisoprene		•	•	•	•				
Pergut® B 10	10 ± 2	≤ 0.005	≤ 7	≤ 2.5	≥ 65.0	Polybutadiene		•	•	•	•				
Pergut® S 20	20 ± 4	≤ 0.005	≤ 7	≤ 2.5	≥ 64.5	Polyisoprene	•	•	•	•	•	•		•	
Pergut® B 20	20 ± 4	≤ 0.005	≤ 7	≤ 2.5	≥ 65.0	Polybutadiene		•	•	•	•	•			
Pergut® S 40	42 ± 9	≤ 0.005	≤ 7	≤ 2.5	≥ 64.5	Polyisoprene	•	•				•	•		
Pergut® S 90	92 ± 18	≤ 0.005	≤ 7	≤ 2.5	≥ 64.5	Polyisoprene	•						•		
Pergut® S 130	150 ± 30	≤ 0.005	≤ 7	≤ 2.5	≥ 64.5	Natural rubber	•								
Pergut® S 170	165 ± 35	≤ 0.005	≤ 7	≤ 2.5	≥ 64.5	Polyisoprene	•								

 $^{^{\}star}$ Viscosity and iodine color measured in 18.5 % solution in Toluene

Fast-lane access to polyurethane innovations

At Covestro innovation is in our DNA. Ever since Otto Bayer discovered polyurethanes in 1937, we have been driving polyurethane innovations in coatings and adhesives as well as in other application areas. As our partner you enjoy fast-lane access to polyurethane innovations, and can help us in developing the next generation of polyurethanes to meet the industry's upcoming challenges and needs. What can we offer you?

- Powerful know-how on both established and new polyisocyanates, as well as on new polyurethane hybrid technologies.
- The prospect of new application technologies to enable efficient processes.
- More sustainable, biomass- or CO₂-based materials that do not sacrifice high performance.

Join us to shape the future!