



Chemical
processing
equipment

PRODUCT RANGE

Dear customers,

you are looking at the catalogue of products and services which our company offers.

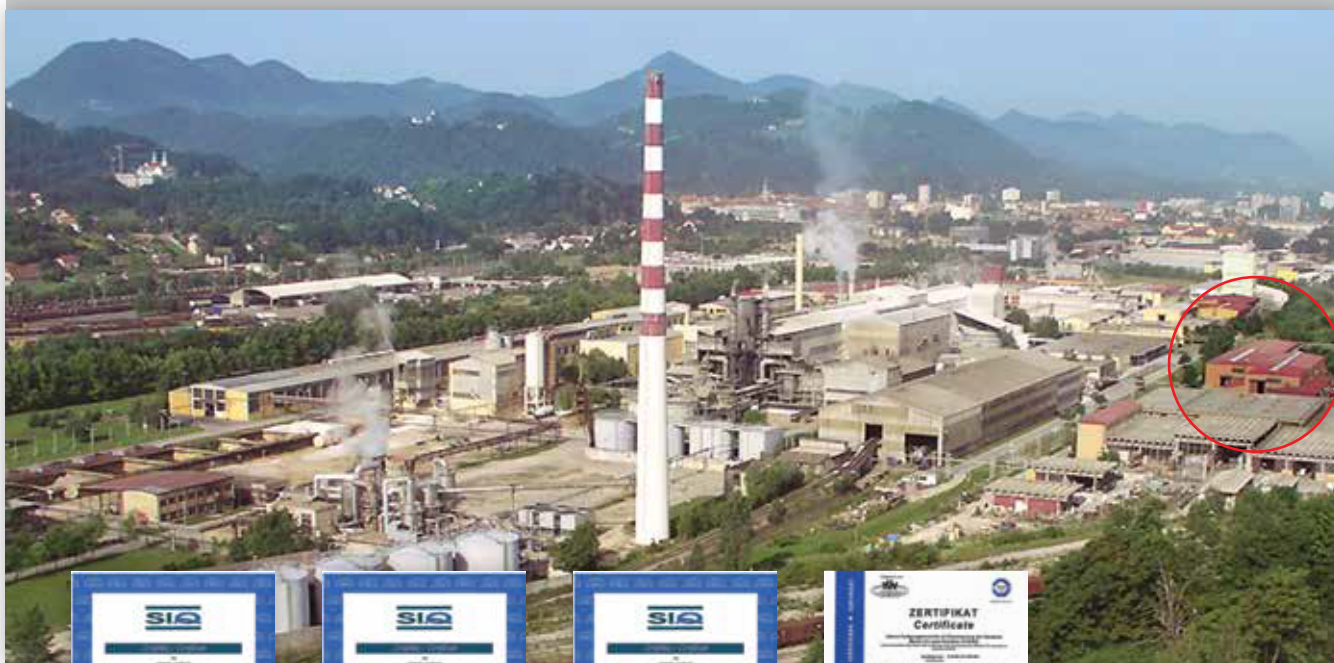
Allow me to introduce the company. The company operates in the Cinkarna Celje company, a well-organized company, which has been active on the international outlets for more than ten years. It is situated near Celje, in the direction towards the east. Its business area are chemical and metallurgical processes demanding high-quality technology and durable materials.

The business outlet is called POLIMERI. Its primary business area is servicing the production and ensuring the aggressive agents decantation systems and protection of metal delivery and reinforced concrete systems. We are used to extreme conditions which the production processes are exposed to. We gain know-how and experience from solving our own problems.

We are proficient in rubber and polymer which is best known as Teflon®. We have developed the products shown in the catalogue which provide answers for many questions. Hopefully they can also answer some

of your questions. We are a responsible team striving for development and testing for the products which we produce. The development departments of our suppliers enable us to be connected to the outside European knowledge which is an important and successful supplement to our experience.

Some of you probably already know us since our products are useful in many production areas. Therefore I greet our old acquaintances, and for the ones who have come across our trademark for the first time: we recommend you to have a look at the catalogue. Hopefully you'll find some of the answers to the tasks and objectives pursued.



ISO 9001 certificate



ISO 14001 certificate



ISO 18001 certificate



PED certificate

Quality Guarantee

We are trusted by customers who need a responsible supplier that ensures stable product and service quality by using the best technological processes, who shows concern for the environment by promoting the sustainable development of the company, and meets all safety and health requirements regarding the employees and the products. For this reason, we acquired the certificates ISO 9001, ISO 14001, BS OHSAS 18001, and the CE marking, which are used as proof of the conformity of the products with EU regulations. Our employees are aware that our greatest success is a satisfied customer.



Type examination certificate

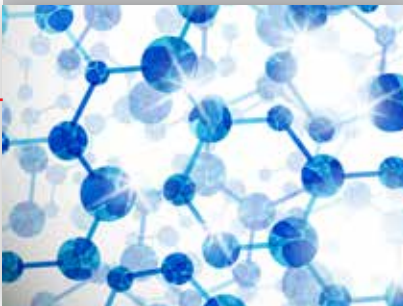


Certificate concerning the qualification for the maintenance of equipment in explosive atmospheres



Certificate concerning the qualification for the installation of equipment in explosive atmospheres

Chemical industry



Pharmaceutical industry



Power plants



Petrochemical industry



Food industry

THE PROCESSING OF FLUOROPOLYMERS

Cinkarna developed fluoropolymer and elastomer processing (PTFE, FEP, PFA, PVDF, E-CTFE). According to their chemical and thermal properties, these materials are classified as "high-tech" materials.

Products made from these materials are used in the chemical, pharmaceutical, and food industries, as well as in construction, mechanical engineering, and electrical engineering.

PTFE processing

PTFE piston rings

Thin wall PTFE tubes

Veflex tape

PTFE seals



PTFE SEMI-PRODUCTS

Rods, pipes, sheets, foils.

The main PTFE properties include:

- perfect chemical resistance,
- excellent electrical properties,
- excellent durability at temperatures between -200 and +260°C,
- excellent sliding properties,
- does not age,
- does not absorb water,
- added inorganic fillers (glass, charcoal, graphite, bronze) improve its mechanical properties.

THIN WALL PTFE TUBES

Thin wall tubing is made of pure PTFE and is resistant against virtually all chemicals at temperatures between -200 and +260°C. It is used for the transportation of solvents, corrosive, hot, abrasive substances, for cable insulation, for high pressures, piping in laboratories, and as exchangers in aggressive substances.

PISTON RINGS

The chemical, food and oil processing industries use a large number of dry compressors, pumps and other elements which require materials with good sliding properties. PTFE, with fillers, such as graphite, charcoal, coke, and glass, proved to be ideal. By using such PTFE, dry operating is enabled, the use of lubricants is reduced, and the stick-slip phenomenon is eliminated.

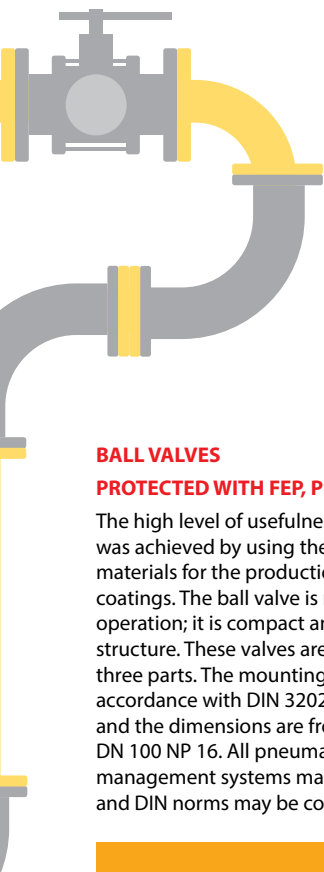
VEFLEX EXPANDED PTFE

The expanded PTFE seal VEFLEX is a modern straight seal in a reel. It is used as a static seal for all flanged and cover connections and for all media. It is made of pure PTFE by recomposing the structure of the fiber by means of a special procedure, and it contains a combination of significant and specific mechanical and sealing properties:

- excellent plastic formation,
- a great ability to adapt to the structure of the sealing surface,
- immovable under pressure,
- a great sealing ability and a long lifespan,
- high chemical and thermal resistance.

PTFE SEALS

They are intended for the sealing of flanged joints of pipelines, valves, fittings, cisterns, autoclaves made of steel, graphite, or protected with enamel or fluoropolymers in the chemical, petrochemical, or the food industries. Seals are made in a round or oval shape or according to the custom design of the customers.



PRODUCTION OF VALVES AND PTFE PIPELINES

BALL VALVES PROTECTED WITH FEP, PFA, PFA-C

The high level of usefulness of the ball valves was achieved by using the highest quality materials for the production of casings and coatings. The ball valve is reliable during operation; it is compact and has a modern structure. These valves are made in two or three parts. The mounting dimensions are in accordance with DIN 3202 F1 or ANSI 150Lb, and the dimensions are from DN 15 up to DN 100 NP 16. All pneumatic and electronic management systems made according to ISO and DIN norms may be connected to ball valves.

NON-RETURN BALL VALVES PROTECTED WITH FEP, PFA, PFA-C

Flanged centric elements for the complete, fast, and quiet closing of the flow from the opposite direction. The advantage of ball valves is their simple structure and simple assembly/disassembly. Their application covers a wide range of uses – both liquid and gas media. Food quality is ensured. Mounting dimensions DIN 3202 F1. Flanges ISO 5752, DIN 50094 tightness test. Service pressure up to 16 bar, technical negative pressure. Maximum temperature 200°C FEP, 260°C PFA antistatic agent. Dimensions DN 15 – DN 100.

JOINTS AND ELEMENTS CUSTOM-MADE OR CUSTOMER-DESIGNED, THE ASSEMBLY OF THE EQUIPMENT



Ball valves

Non-return valves

Butterfly valves

PTFE pipelines

Elements for observing the flow

PTFE - bellows

Flexible PTFE pipelines



BUTTERFLY VALVES

Butterfly valves are intended for closing or regulating corrosive liquids, gases, pastes or powder agents in pipeline systems and in devices in the chemical, food, pharmaceutical, paper and petrochemical industries. FEP, PFA linings, elastomer dimensions from DN 50 to 250 NP 8-10.

CC FLON

TRANSPORTATION ELEMENTS IN AGGRESSIVE AGENT SYSTEMS

Pipelines and elements with connections protected with PTFE, PFA, FEP and PFA-C are used wherever high corrosive protection from very aggressive chemicals at high temperatures is required, as well as where the coating needs to be physiologically faultless and where the coating needs to have anti-adhesive properties.

The combination of the high level of strength of the basic carrying element and the excellent properties of PTFE, PFA and FEP plastics applied according to the shape of the carrying element and especially according to operating conditions, offer optimum solutions. Such protection guarantees a long lifespan, simple assembly, and it also reduces maintenance costs.

Upon the request of the customer, all coatings may conduct electricity and be used in EX areas.

SIGHT GLASS PROTECTED WITH FEP, PFA, PFA-C

The elements for observing the flow of corrosive liquids are intended for the visual monitoring of the flow of agents in pipelines. Our product range includes two versions: type A and type B.

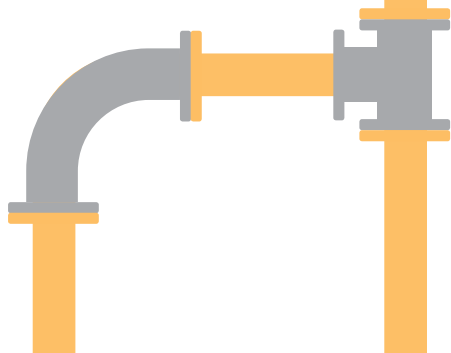
Dimensions DN 15-100.

PTFE - BELLOWS

Compensators are used in the chemical industry. They are used for compensating for elongation, vibrations, and tolerance in assembly in devices and pipelines at high temperatures under pressure and in vacuum.

FLEXIBLE PTFE PIPELINES

Flexible pipelines are used in the chemical, pharmaceutical, and food industries for the flow of aggressive agents of solvents and other liquids and gases. Used at temperatures between -200 and +260°C. Dimensions DN 8 – DN 100.



POWDER APPLICATIONS

PVDF, E-CTFE, ETFE, PTFE

DISPERSIONS, PAINTS

PVDF POWDER APPLICATION

PVDF is a fluorinated thermoplast – polyvinylidene fluoride (REPCOAT), with similar properties as PTFE. The REPCOAT coating has a great mechanical resistance, it is very resistant against wear and tear, aging, it is also resistant against UV and gamma rays, it is non-adhesive and physiologically faultless, it is resistant in most organic and inorganic acids and bases, depending on the temperature and concentration of the agent, in aliphatic and aromatic hydrocarbons, alcohols, and in solvents up to the temperature of 120°C. It is non-resistant in disulphuric acid, strong basic amines, in very hot and concentrated alkalis, and in an alkali metal melt. It swells in strong polar solvents, such as acetone and ethyl acetate.

PVDF application
– Repcoat

ETFE application

E-CTFE application
– Halar

PTFE dispersions

Powder coating



ETFE POWDER APPLICATION

The ETFE coating is a thermoplastic copolymer acquired by means of the polymerization of ethylene and tetrafluoroethylene. It is strongly resistant against abrasion and mechanical influences. It is very resistant against wear and tear and aging. It is resistant in most inorganic and organic bases and acids; depending on the concentration of the agent, it is resistant at temperatures of up to 140°C. This coating may conduct electricity.

HALAR - E-CTFE APPLICATION

HALAR E-CTFE is a composite polymer acquired by means of the polymerization of ethylene and chlorotrifluoroethylene. It is due to this combination that HALAR has unique properties. The fluoropolymer HALAR has excellent chemical resistance, great electrical properties, and a wide range of uses at temperatures of up to 150°C. It is one of the best fluoropolymers with abrasion resistance. Upon the request of the customer, the coating may also conduct electricity.

PTFE – DISPERSIONS

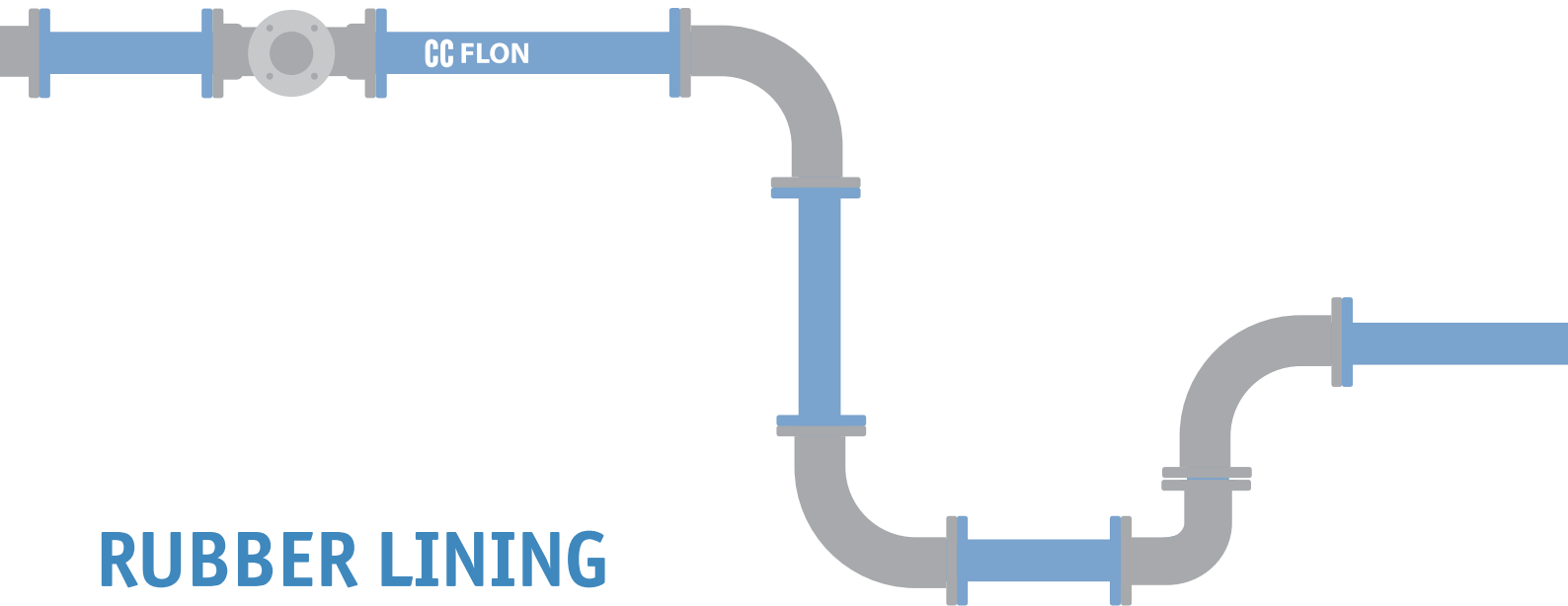
For the application onto metal materials, PTFE and PFA dispersions are used, the properties of which enable good sealing qualities and the non-abrasiveness of the coating. The typical models protected by means of dispersions are: car tires, products in the food industry, belts, headlights, shoes, cutting discs, packaging, welding strips.

Coats with PTFE dispersions are micro porous and unsuitable for chemical industry!

POWDER COATING

Powder coatings are ideal for the protection of all kinds of metal products and they provide excellent functional protection as well as an attractive appearance. They also have numerous advantages, especially when compared to classic coatings. We use EKOLAK, a Cinkarna Celje product which has a binder that is based on saturated polyester resins and epoxy resin, especially selected according to their good chemical resistance and resistance against turning yellow when exposing to high temperatures. The colors correspond to the RAL color chart.

CC FLON



RUBBER LINING PROCESS EQUIPMENT

Rubber lining
Diaphragm valves
Elastic couplings



DIAPHRAGM VALVES

Diaphragm valves coated with hard rubber are intended for use in the chemical industry, for the flow of process water, acids, bases, etc. The valves are made of cast iron of SL 25 quality. The body of the valve is protected with a high-quality hard-rubber coating that protects the metal parts from corrosion. The diaphragm is made of EPDM or a combination of EPDM and PTFE. They are made in dimensions from DN 15 to DN 200.

ELASTIC COUPLINGS

Elastic couplings are used for the soft transfer of torques. Their advantage is their simple structure, the quick exchange of elastic inserts and quiet operation.

APPLICATION OF ELASTOMER FOILS – RUBBER LINING WITH HARD OR SOFT RUBBER

The purpose of applying various elastomer foils is to protect construction elements from the effect of aggressive substances. The materials which are usually protected include:

- Construction steel, concrete, and reinforced concrete.
- We manage the application of rubber coatings onto cisterns, tanks, and other process equipment.
- The processing of elastomers in tools, the production of PTFE elastomer elements.

Vulcanization is carried out in an autoclave.

Dimensions: ø 3,3 x 10 m.





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