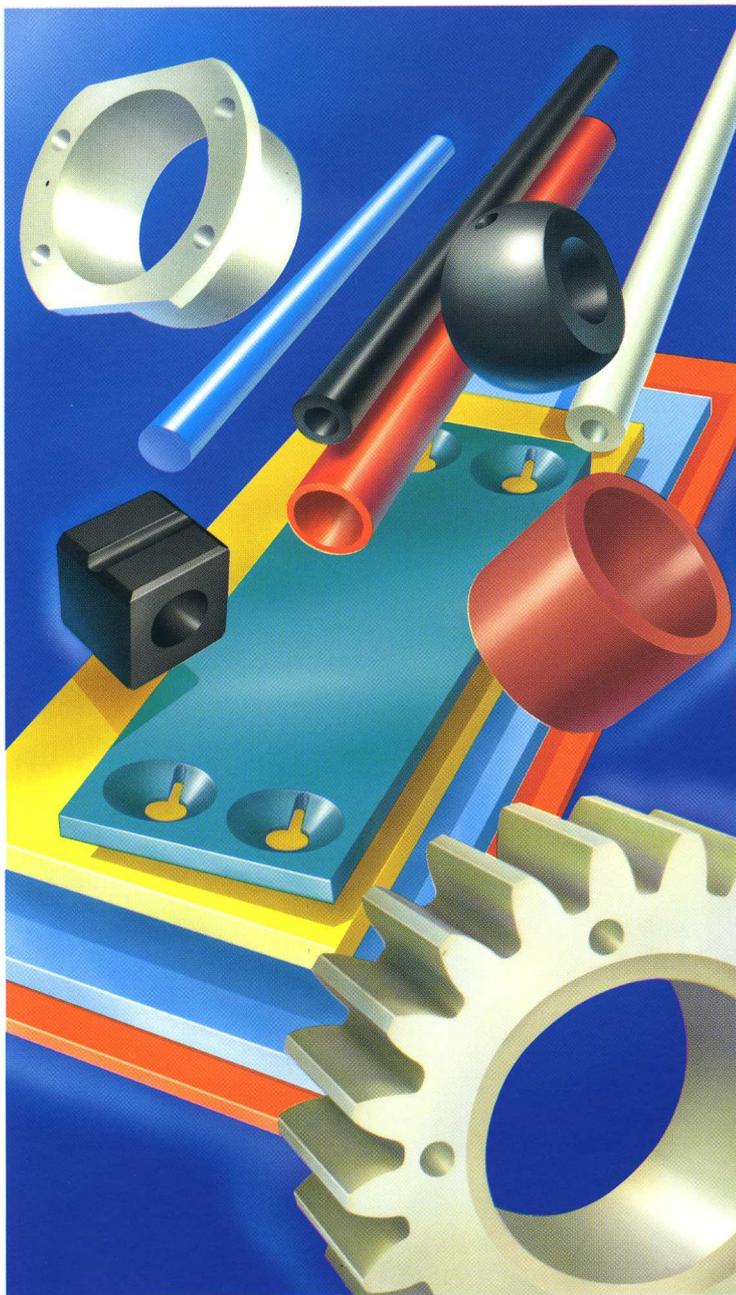


ENGINEERING PLASTICS

# SIRTRES





## HIGH PERFORMANCES POLYMERS

A range of polymeric materials *with outstanding performances as far as resistance against temperature, mechanical stresses and chemical corrosion are concerned.*

These materials easily exceed the limits of the traditional plastic materials and allow very critical *applications with unexpected results* in many fields including *aerospace, electronic and military industry.* At your availability a big dimensional choice of semifinished shapes or machined parts according to your drawings.

## TERMOPLASTIC POLYMERS

A very wide range of plastic material with extremely differentiated properties to comply, in alternative to the more traditional materials, the several requirements of up to date engineering.

These polymers can *replace with technical and economical advantages: bronze, antifriction alloy, steel, stainless steel, cast iron, aluminium, wood and leather.*

We can supply semifinished shapes or parts according to drawing, *machined using the most up to date processing technique.*

## FLUOROPOLYMERS

From the most known **PTFE (TEFLON®)** in all the possible modifications up to:

**FEP - MFA - PFA - PCTFE - ECTFE - PVDF - ETFE**

A wide choice of fluorinated polymers to supply finished parts as per your drawing or according to our engineering. The performances of such materials are particularly interesting for the solution of problems in the following industrial fields:

- chemical:** *corrosion resistance and antistick properties*
- food:** *antistick and non toxic properties*
- electrical - electronic - electromechanical:**  
*dielectric strength*  
*high temperature resistance*
- textile-paper:** *antistick properties and corrosion resistance*  
*mechanical strength*

All above features in a wide temperature range: -200 +260 °C.



## HEAT SHRINKABLE SLEEVES IN TEFLON® FEP-PFA

These sleeves make it possible to cover a big variety of process cylinders with a thin layer (*0,5 ÷ 1,5 mm. thickness*) of antistick material which is also absolutely *corrosion resistant* against all chemicals. It is possible to reach a working *temperature of 240°C.* The really wide dimensional range allows applications in all the following plants:

*paper, textile finishing, printing and developing on paper and plastic films, coating (also on textiles), processing of plastic films (extrusion, calendering, laminating), production and internal conveying of food and tacky materials.*

If utilized on *calendering rolls (nip-rolls)* running at high linear pressure, the heat shrinkable sleeves can be bonded on several supporting *sublayers (namely rubber)*; in case of *coating rollers* where an high geometrical precision is required, we usually provide a *ground finishing.*

In particular cases, but only on *metallic rolls*, it is possible to use the antistick *spray-coating* process.

## EXTRUDED AND HEAT SHRINKABLE TUBINGS

A wide and complete choice of *tubings in fluorocarbon or silicon resins* in both extruded and heat shrinkable versions, able to fulfil numerous requirements for many applications:  
*insulation of connections in the electric, electromechanic and electronic field, even at high temperature*  
*insulation of electric heating elements*  
*anticorrosive lining of probes for process data measuring and of electric immersion heaters for corrosive fluids*  
*conveying of highly corrosive as well as very pure gases of fluids (white room).*  
*conveying of food and tacky materials, even at high temperature*  
*conveying fluids into heat exchangers*

These tubings are very suitable for applications in *medical* field and able to withstand a *wide temperature range, from -200 up to +260 °C*; they can be supplied as per MIL and UL rules as well with certifications about *fire resistance* and *non toxic gases emission*, if burning.



## LININGS ANTICORROSIVE AND ANTISTICK

When the ideal structural material has no suitable surface with consequent problems of corrosion and cleaning, a thin lining of *fluorocarbon polymer* can be the final *technical solution*. By means of the most convenient technique (*namely: welding of reinforced sheets, electrostatic spraying, fluidized bed*) this very thin barrier of:

**MEKTON® PFA - FEP - ETFE - ECTFE**

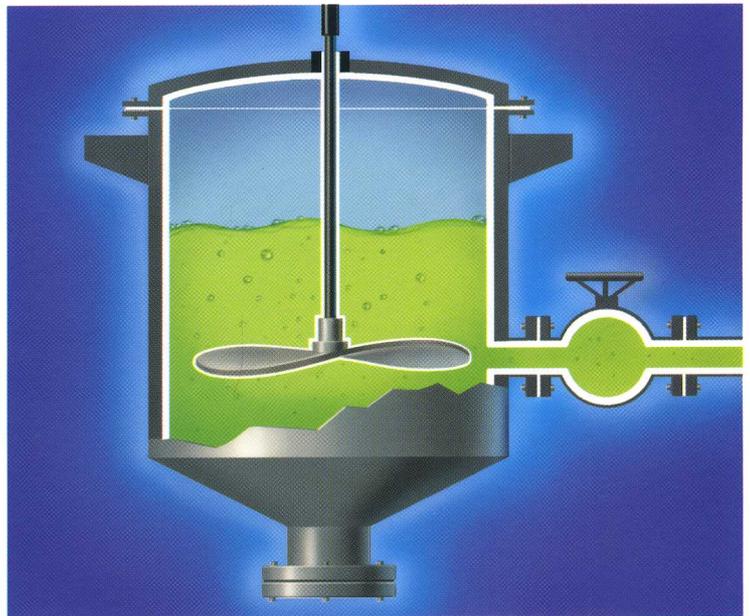
is incredibly able to definitively solve, in absence of abrasive action, any problem of chemical aggression and sticking effect. The fields interested by this solution are:

*chemical, pharmaceutical, biomedical, food, galvanic, electronic and process instrumentation*

For plant components like:

*hoppers, stocking tanks, swilling tanks, reaction columns, agitators, filters and heat exchangers*

You will free yourself from need of frequent restoring of traditional lining (*ebonization*) and utilisation of expensive metallic materials like AISI 316 L - Hastelloy - Titanium.



## ROLLERS AND COMPONENTS IN ELASTOMERIC POLYURETHANE

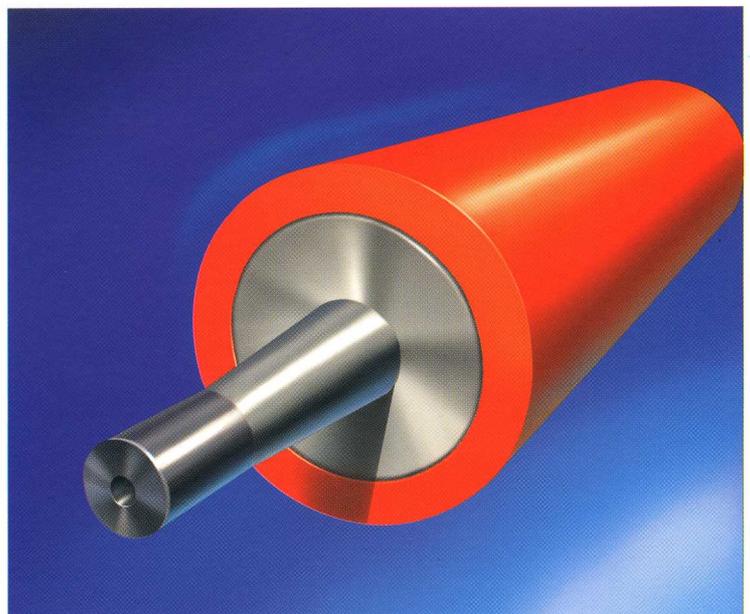
Elastomeric materials with *outstanding resistance to abrasion, compression, notching and tearing* if compared with traditional rubbers (*both natural and synthetic*) of equivalent hardness. Typical applications are: *conveying, reeling and calendering rollers* in *textile, paper and metallurgic fields* as well as,

**ROLLS FOR DEVELOPING MACHINES**

These rollers are made in rigid cellular polyurethane or siliconic rubber for *radiographic, photographic and graphic fields*. They represent a real technical and economical alternative to PVC.

## PROBLEM SOLVING ACTIVITY

In the field of thermoplastic, thermosetting, elastomeric and composites materials, we are able to efficiently assist you from your original idea up to the global solution of an experienced problem. The co-operation with domestic and foreign leading companies, is the warranty for our skilfulness and professionalism for "turn-key" solutions.





**SIRTRES** s.r.l. ENGINEERING PLASTICS



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