

# Tecnofin (R) thermoplastic compounds

Thermoplastic elastomers and polymeric alloys to be used in the automotive and home appliance industries

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Tecnofilm Spa was established in 1972, focusing in SBS-based thermoplastic compounds for the shoe industry.

Our ability to integrate our products goals with our customers needs. Tecnofilm is committed to innovation through ongoing improvement of its production processes and continual expansion of it product range.

Our team of marketing and product specialists continuously monitors industry events to be proactive and solution oriented with our customers.

Since 2002, its internal R&D technicians has been focused to develop and to introduce a new products in the marketplace. Our products line included SEBS and TPU compounds, vulcanized thermoplastic elastomer, (TPV-EUROTER) and polymeric alloys (TPO).

These new products are extensively used for the shoe industry, particularly in the automotive industry for a wide range of applications.

We recognized that each customers operates a little differently. Based all of our value proposition the four guiding principals:

- preeminent customer service;
- quality products;
- industry knowledge;
- product innovation.

Our success is based on intense research and development; into new products, prodution processes and application, based on the background and experience of our collaborators and technicians.

Our TPV-EUROTER products are vulcanised thermoplastic materials, having similar characteristics of vulcanised rubber as well as to plasticized PVC, with good flexibility and processability properties, low compression set.

These products can be processed using standard thermoplastic equipment and can be injected, extruded, filmed and thermoformed just like normal thermoplastic products.

Waste can be fully reprocessed with considerable efficiency and environmental sustainability advantages.

EUROTER exhibit excellent light, ozone and UV stability compared to traditional vulcanised rubbers (thermo-set). Based on these properties, our products can be used in a wide range of applications.

The main **EUROTER** properties:

- very good resistance to high and low temperatures, from 135 °C to -60°C, and to oils and grease, giving manufactured products a long lifespan;
- high abrasion resistance and a low friction coefficient;
- good mechanical characteristics, high resistance to tearing and fatigue, excellent resistance to many acids, based and aqueous solutions;
- wide range of products from 35 Shore A to 60 Shore D, for a vast number of applications, even complex and difficult to do with traditional vulcanised rubbers;
- excellent ozone, UV and age resistance after exposure to light.

# Estrusione Extrusion

Proprietà/Property	Range +/-	Standard	A35	A45	A55	A65	A75	A85	A90	D40	D50	D60
Densità/Density	0.02	DIN 53 479	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Durezza/Hardness 15" SH/A	3	ISO 868	35	45	55	65	75	85	90	40	50	60
Carico a rottura/Tensile Strength (at break) Mpa	1	ISO 37	4	4.5	5	6	8	10	12	14	16	18
Allungamento/Elongation (at break) %	100	ISO 37	550	550	500	450	450	500	500	550	600	600
Lacerazione/Teat strenght N/mm	5	DIN 53515	15	15	24	28	38	50	60	75	90	100
Modulo al 100%/Modulus at 100% MPa	0.5	ISO 37	1.5	2	2.5	3	3	3.5	5	8	12	14
Modulo al 300 %/Modulus at 300% MPa	0.5	ISO 37	2	3	4	4.5	5.5	6				
Compression set %	3	ISO 815	30	32	34	36	36	38	38	44	45	50

## Stampaggio Moulding

Proprietà/Property	Range +/-	Standard	A35	A45	A55	A65	A75	A85	A90	D40	D50	D60
Densità/Density	0.02	DIN 53 479	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Durezza/Hardness 15" SH/A	3	ISO 868	35	45	55	65	75	85	90	40	50	60
Carico a rottura/Tensile Strength (at break) Mpa	1	ISO 37	4	4.5	5	6	8	10	12	14	20	22
Allungamento/Elongation (at break) %	100	ISO 37	550	550	500	450	450	500	500	550	600	600
Lacerazione/Teat strenght N/mm	5	DIN 53515	18	20	25	30	40	50	65	75	90	100
Modulo al 100%/Modulus at 100% MPa	0.5	ISO 37	1.5	1.5	2	2.5	3	4	5	9	12	14
Modulo al 300 %/Modulus at 300% MPa	0.5	ISO 37	2	2.5	3.5	4	4.5	6	7	9	10	12
Compression set %	3	ISO 815	30	32	32	34	34	36	38	44	45	50

### Soffiaggio Blowmoulding

Proprietà/Property	Range +/-	Standard	A65	A75	A85	A90	D40	D50
Densità/Density	0.02	DIN 53 479	0.94	0.94	0.94	0.94	0.94	0.94
Durezza/Hardness 15" SH/A	3	ISO 868	65	75	85	90	40	50
Carico a rottura/Tensile Strength (at break) Mpa	1	ISO 37	6	8	10	12	16	20
Allungamento/Elongation (at break) %	100	ISO 37	600	600	650	650	650	650
Lacerazione/Teat strenght N/mm	5	DIN 53515	35	45	55	70	80	90
Modulo al 100%/Modulus at 100% MPa	0.5	ISO 37	2	3	4	6	8	11
Modulo al 300 %/Modulus at 300% MPa	0.5	ISO 37						
Compression set %	3	ISO 815	38	40	44	45		

### Special degrees available:

- loaded with specific weight > 1;
- with extremely low hardness, 25/30 Shore A;
- foods, specific FDA for all hardnesses;
- anti-flame, specific UL 94 classe V0;
- neutral, almost colourless and trasparent;
- for special adhesions and applications resistant to hydrocarbons and other products.

