



Il vostro partner per il TPU
Your partner for TPU

EPAFLEX is a system house specialized in the production of PU systems, MDI prepolymers and formulated polyols, polyester and polyether based, for footwear and automotive (air filters) applications and in the production of thermoplastic polyurethane (TPU).

EPAFLEX was founded in the beginning of the 90's and has enjoyed fast growth. The company has established itself on the principal markets around the world thanks not only to the quality of its products but also to its ability to satisfy customer's requests in real time.

The company is located within the industrial district of Vigevano, one of the world's main centres for the shoe industry. The production site is located in the industrial zone of the town of Cassolnovo in the immediate vicinity of Vigevano. For this reason our technicians can easily operate with manufactures of soles production machines, additives and adhesives.

Many customers scattered around the world confirm that the EPAFLEX polyurethanes are products of optimum quality. What pleases us most of all is when they say that they have found the ideal partner in us in order to be able to improve their work.

Perhaps it is because of the size of our company which enables direct relationship between the customer and the EPAFLEX technical service, competent and always available.

Perhaps it is for the possibility of having tailor made products, also on the basis of the types of packaging.

Perhaps it is because of our experience and of the fact that our factory has grown up in the middle of an area traditionally advanced in the technological sector in which we operate.

Perhaps it is due to the consistency of our PU systems and TPUs and to the reproducibility of the quality of the finished product based on them.

Or most probably it is thanks to all these factors.

EPAFLEX can certainly suggest and sample a tailor made product that will meet your requirements. Customer satisfaction is a real commitment for EPAFLEX. The quality of our products and our experienced technical assistance are the main features of which we are proud.

You can find a selection of EPAMOULD and EPACOL grades in the pages that follow. Please contact EPAFLEX for specific information about our products and for an update on the latest new developments.

TYPICAL PRODUCT PROPERTIES AND APPLICATIONS

Epamould grade		282 A 10	285 A 10	290 A 10	295 A 10	295 A 10 W	295 A 30	295 A 30 W	255 D 12	260 D 12	272 D 10
Density	g/dm^3	1,19	1,18	1,19	1,19	1,19	1,2	1,2	1,2	1,2	1,21
Hardness	Shore A	81	85	92	95	95	95	95			
	Shore D				47	47	47	47	55	60	72
Tensile strenght	MPa	31	36	40	48	48	47	43	43	46	53
Modulus at 100% elongation	MPa	4,5	6	8	13	11	12	11	11	15	28
Modulus at 300% elongation	MPa	8	12	16	28	24	22	21	24	38	49
Elongation at break	%	560	520	500	380	460	450	420	400	380	320
Tear strenght	KN/m	65	80	95	110	110	135	105	118	140	170
Abrasion	mm^3	30	30	30	30	30	30	30	35	35	40

Footwear		X									X
Extruded belts			X	X	X	X	X	X			
Wheels			X	X					X	X	X
Seals		X		X	X		X				
Furniture					X		X		X	X	
Screens			X		X						

EPAMOULD 200 series has been developed to meet the most stringent requirements of producers of engineered parts via injection moulding. Selected products find application in specific extrusion processes. Special grades may be available upon request.

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TYPICAL PRODUCT PROPERTIES AND APPLICATIONS

Epamould grade		665 A 26	670 A 26	675 A 26	680 A 15	686 A 10	685 A 10	685 A 26	690 A 10	650 D 12	655 D 12	660 D 12	665 D 12	670 D 10	672 D 10
Density	g/dm^3	1,17	1,17	1,18	1,18	1,19	1,19	1,19	1,19	1,2	1,2	1,2	1,2	1,21	1,21
Hardness	Shore A	67	70	76	80	86	85	86	92						
	Shore D									52	55	62	65	70	72
Tensile strenght	MPa	22	24	30	28	40	33	38	30	41	43	40	52	53	53
Modulus at 100% elongation	MPa	2,5	2,8	3,5	4	4,5	5	4,8	7,5	10	11	13	21	25	28
Modulus at 300% elongation	MPa	5	5	7	8	12	11	10,5	15	23	24	37	44	48	49
Elongation at break	%	620	620	600	550	560	480	500	450	380	400	320	340	320	320
Tear strenght	KN/m	48	48	71	68	95	85	85	85	123	125	150	145	150	170
Abrasion	mm^3	38	38	35	30	25	30	32	30	37	37	40	38	40	40

TPU shoe soles		X	X	X	X	X	X	X	X						
TPU/PU shoe soles		X	X	X	X	X	X								
Heels										X		X	X	X	X
Skiing boots										X	X	X	X	X	X
Wheels									X		X	X			
Furniture							X			X	X	X			

EPAMOULD 600 series has been developed to meet the most stringent requirements of the footwear industry. These products find also ever increasing technical application in selected injection moulding processes. Special grades may be available upon request.

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TYPICAL PRODUCT PROPERTIES AND APPLICATIONS

Epamould grade		780 A 15	785 A 15	790 A 15	795 A 15
Density	g/dm^3	1,11	1,11	1,13	1,15
Hardness	Shore A	81	86	92	93
Tensile strenght	MPa	29	33	34	35
Modulus at 100% elongation	MPa	4,5	5,5	5,7	9
Modulus at 300% elongation	MPa	8,5	9,5	12	18
Elongation at break	%	610	500	480	450
Tear strenght	KN/m	65	70	72	90
Abrasion	mm^3	35	30	30	35

Moulded parts		X	X	X	X
Membranes					X
Extruded belts					X

EPAMOULD 700 series is based on special raw materials (polyethers) that impart excellent resistance to hydrolysis, to microbial attack and improve performance at very low temperatures. These products find application in production of engineered parts via injection moulding process and via selected extrusion processes. Special grades may be available upon request.

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TYPICAL PRODUCT PROPERTIES AND APPLICATIONS

Epaline		385 A 25	392 A 25	350 D 25	785 A 25
Density	<i>g/dm³</i>	1,18	1,19	1,2	1,11
Hardness	<i>Shore A</i>	87	93		87
	<i>Shore D</i>			53	
Tensile strenght	<i>MPa</i>	32	40	38	31
Modulus at 100% elongation	<i>MPa</i>	6	8	9	5
Modulus at 300% elongation	<i>MPa</i>	12	22	21	9
Elongation at break	<i>%</i>	530	550	400	610
Tear strenght	<i>KN/m</i>	78	94	115	70
Abrasion	<i>mm³</i>	35	45	40	35
Base chimica		ester	ester	ester	ether

EPALINE series includes the new products recently developed to be used for extrusion of cables, profiles, belts and similar items. Special products my be made available upon request.

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TYPICAL PRODUCT PROPERTIES

Epacol grade		TK 42	TK 42 - 300	TK 42 - 3000	TK 54	TK 54 - 3000	TK 560	TK 560 - 500	TK 560 - 3000
Viscosity at 23° C of a 15% solution in MEK	mPaS	1700-2200	200 - 600	2800-3600	1700 - 2200	2200 - 3200	1700 - 2200	200 - 600	2500 - 3300
Activation temperature	°C	55-60	55-60	55-60	60-65	60-65	65-70	65-70	65-70
Crystallisation rate		high	high	high	very high	very high	high	high	high
Heat resistance	°C	≥ 60	≥ 60	≥ 60	≥ 65	≥ 65	≥ 70	≥ 70	≥ 70
Open time		medium	medium	medium	excellent	excellent	medium	medium	medium

EPACOL TK series has been developed to meet requirements of the producers of solvent borne adhesives with excellent resistance to hydrolysis. These products are particularly suitable for the production of footwear adhesives in a wide range of solvent combinations. Special grades may be available upon request. Please contact Epaflex for specific information about our products and for an update on the latest new developments.

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TYPICAL PRODUCT PROPERTIES

Pakoflex		050 AE	060 AM	060 AB	080 AM	097 HV	110 DM	110 DB	110 DF	220 DM	220 DB
Viscosity of 25% solution in DMF	<i>Pas</i>	12-18	40-70	20-30	30-60	>120	40-70	18-35	3-7	40-70	20-30
Hardness	<i>Shore A</i>	83-86	87-89	87-89	90-94						
	<i>Shore D</i>					52-55	51-54	51-53	52-55	70-72	70-72
Tensile strenght	<i>MPa</i>	28	36	36	40	45	46	40	45	50	50
Modulus at 100% elongation	<i>MPa</i>	4,5	5,5	5,5	7	9,5	11	10	9,5	23	23
Modulus at 300% elongation	<i>MPa</i>	9,5	11	11	16	24	28	25	24	45	45
Elongation at break	<i>%</i>	600	550	550	500	450	420	450	450	350	350
Base chemistry		Ether/Ester	Ester	Ester	Ester	Ester	Ester	Ester	Ester	Ester	Ester

PAKOFLEX series has been developed to meet the most severe requirements of producers of synthetic leather by transfer coating or coagulation process. Epaflex can offer a wide range of products with different feeling and finish. Special grades may be available upon request. Please contact Epaflex for specific information about our products and for an update on the latest new developments.

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