



4KTEC[®]
PA6 COMPOUNDS

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COMPOUNDS BY KORRELS

4KTEC® PA6 COMPOUNDS

4KTEC® PA6 compounds are designed to deliver exceptional impact resistance and outstanding mechanical performance. This is achieved through an innovative blend of mineral fillers and glass fibers. This unique formulation enhances the material's rigidity, dimensional stability, and resistance to warping, making it well-suited for products with large surface areas.

The 4KTEC product line offers a variety of options with different viscosities and enhanced features. These include resistance to UV light, impact modification, the ability to be laser-marked, heat stabilization, and flame retardance, among other capabilities.

Customized 4KTEC formulations can be tailored to meet the specific needs of different industries. Furthermore, 4KTEC is fully recyclable and maintains its desirable properties even after regrounding.

- > Excellent impact resistance and toughness at low and high temperatures
- > High dynamic strength
- > Very good abrasion resistance
- > Hydrolytic stability (special grades)
- > Excellent chemical resistance
- > Highest stress resistance, even at cold temperatures
- > High wear and fatigue resistance even at high temperatures
- > Good electrical properties, easy processability
- > Flame retardant compound with halogen and halogen free UL94 V-2 or V-0 classifications
- > Glow wire flammability index
- > Glow wire ignition behavior (no flame)
- > Low smoke density and toxicity

4KTEC® PA6 COMPOUNDS

	PROPERTY	METHOD	UNIT	STANDARD										
					UNFILLED, NATURAL	UNFILLED, NATURAL	IMPACT MODIFIED, NATURAL, LOW IMPACT	IMPACT MODIFIED, NATURAL, MEDIUM IMPACT	IMPACT MODIFIED, NATURAL, HIGH IMPACT	IMPACT MODIFIED, BLACK	UNFILLED, MOS2; MODIFIED	UNFILLED, CONDUCTIVE BLACK	25% MINERAL REINFORCED, IMPACT MODIFIED, NATURAL	30% MINERAL FILLED, HEAT STABILIZED, BLACK
GENERAL	Density	-	g/cm ³	ISO 1183	1.12-1.14	1.12-1.14	1.09-1.11	1.06-1.09	1.03-1.06	1.03-1.06	1.12-1.14	1.16-1.18	1.28-1.30	1.34-1.37
	Molding Shrinkage	Parallel/Normal	%	ISO 294-4	1.2-1.3	1.2-1.3	1.3-1.5	1.3 / 1.5	1.4 / 1.6	1.4 / 1.6	1.2 / 1.3	1.1 / 1.2	0.9-1.1	0.7 / 0.9
	Moisture Content	-	%	ISO 15512	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MECHANICAL	Tensile Stress at Break	+23 C	Mpa	ISO 527	-	-	-	-	-	-	-	60-70	55-65	70-90
	Tensile Strain at Break	+23 C	%	ISO 527	-	-	-	-	-	-	-	-	-	-
	Tensile Modulus	+23 C	Mpa	ISO 527	2500-3000	2500-3000	2250-2500	1900-2250	1500-1800	1500-1800	2750-3250	2500-3000	3000-4000	5000-6000
	Yield Strength	+23 C	Mpa	ISO 527	65-75	75-80	60-70	55-65	45-55	40-50	75-80	-	-	-
	Izod Impact Strength, notched	+23 C	kJ/m ²	ISO 180 / 1A	5-7	6-8	15-25	45-60	60-80	60-70	6-8	5-7	12-16	8-12
	Izod Impact Strength, notched	-30 C	kJ/m ²	ISO 180 / 1A	4-6	5-7	10-15	15-20	20-25	20-25	5-7	4-6	6-8	-
	Izod Impact Strength, un-notched	+23 C	kJ/m ²	ISO 180 / 1U	NB	NB	NB	NB	NB	NB	NB	-	-	-
THERMAL	Izod Impact Strength, un-notched	-30 C	kJ/m ²	ISO 180 / 1U	NB	NB	NB	NB	NB	NB	NB	-	-	-
	Melting Temperature	10 K / min	C	ISO 11357	220-225	220-225	220-225	220-225	220-225	220-225	220-225	220-225	220-225	220-225
	Heat Deflection Temperature	0.45 Mpa	C	ISO 75	170-180	180	-	-	-	-	180	-	-	-
	Heat Deflection Temperature	1.80 Mpa	C	ISO 75	65	65	55	55	50	50	65	65	70	80
	Vicat Softening Temperature	50N	C	ISO 306	200	200	-	-	-	-	200	-	-	-
ELECTRICAL & FLAMMABILITY	Volume Resistivity	-	Ohm.cm	IEC 60093	1E+15	1E+15	1E+15	1E+15	1E+15	1E+15	1E+15	<1E+5	1E+15	1E+15
	Surface Resistivity	-	Ohm	IEC 60093	1E+13	1E+13	1E+13	1E+13	1E+13	1E+13	1E+13	-	1E+13	1E+13
	Comparative Tracking Index	solution A	V	IEC 60112	600	600	600	600	600	600	600	-	550	500
	Flame Rating	0.75 mm	-	UL94	V2	V2	HB	HB	HB	HB	HB	HB	HB	HB
	Flame Rating	1.6 mm	-	UL94	V2	V2	HB	HB	HB	HB	HB	HB	HB	HB

This is a selection of our wide range of standard compounds, if your compound is not listed, please contact your local sales agent.

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4KTEC® MARKETS

4KTEC® COMPOUNDS are widely spread and divided over a number of market segments. We can divide these segments roughly between these markets:

TECHNICAL COMPOUNDS

- > Automotive
- > Home appliances
- > Electric & electronics
- > White appliances
- > Construction
- > Sport equipment
- > Toys
- > Safety equipment
- > Office and garden furniture

SMART POLYMERS

- > Compounding
- > Multilayer pipes
- > Composite panels
- > Halogen-free flame retardant cables
- > Metal coating
- > Co-extrusion
- > Cast and blow films
- > Recycling

4KTEC / ECOMPOUNDS

- > Automotive
- > Home appliances
- > Electrics and electronics
- > Construction
- > Sport equipment
- > Office and garden furniture



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