

ALCOM® T-CONDUCTIVE



The advantages at a glance

- Efficient heat dissipation
- Avoidance of hot spots
- Protection of delicate components
- Increased service life
- Enhanced performance
- Design freedom
- Weight reduction
- Cost reduction
- Corrosion resistance
- Energy saving

www.albis.com

 **ALBIS**

T-Conductive: heat-conducting plastics

T-Conductive from ALBIS creates new possibilities! Compared to standard plastics, this special series of compounds provides significantly improved heat-conducting properties, thereby offering new potential for innovation, cost savings and added value across many areas of manufacturing and technology. Optimum heat management plays a major role when it comes to avoiding heat accumulation and failures. This applies particularly to components with increasing levels of complexity and performance requirements. ALBIS T-Conductive combines high heat dissipation with the advantages of reduced weight and design freedom that are inherent to plastics, making new solutions possible.

Depending upon application requirements we offer the following product series:

ALCOM base polymers TCE / TCD:

ALCOM TCE

Thermally and electrically conductive in black

- PA
- PP
- PBT
- PE
- TPE

ALCOM TCD

Thermally conductive and electrically insulating

Reference data			TCD		TCE	
Properties	Units	Standards	ALCOM PA6 900/31 FR TCD1	ALCOM PA66 910/32.1 TCE5	ALCOM PA66 910/32.1 TCE2	
Polymer			PA6	PA66	PA66	
Physical properties						
Density	g/cm ³	ISO 1183	1,61	1,33	1,23	
Mechanical properties						
Flexural Modulus	MPa	ISO 178	9.300	6.500	3.700	
Flexural strength	%	ISO 178	120	75	70	
Tensile Modulus	MPa	ISO 527	9.300	6.700	3.300	
Tensile stress at break	MPa	ISO 527	85	50	45	
Tensile strain at break	%	ISO 527	1,5	2	3	
Charpy notched impact strength	kJ/m ²	ISO 179	2	3	4	
Charpy impact strength	kJ/m ²	ISO179	25	15	18	
Thermal properties						
Vicat softening point VST B/50	°C	ISO 306	210	250	236	
Heat deflection temperature (HDT A)	°C	ISO 75	150	195	84	
Thermal conductivity / in-plane	W/mK	ASTM E 1461	1,3	8	3	
Thermal conductivity / through-plane	W/mK	ASTM E 1461	0,9	2	1	
Thermal conductivity	W/mK	ISO 22007	1	5	2	
Electrical properties						
Surface resistivity	Ohm	IEC 60093	>10 ¹²	<10 ³	<10 ⁶	
Further properties						
Flammability UL 94*	class/mm	UL94	V-0/1,5	V-0/3,2	HB/3,2	
Glow-wire test	°C/mm	EN 60695	960/1	960/1	850/3	

* Own testing

Development products: ALCOM PA66 910/34 TCD6 (≈ 6,0 W/mK in-plane)
 ALCOM PA66 910/34 TCD5 (≈ 4,5 W/mK in-plane)
 ALCOM PA66 910/37 FR TCD5 (≈ 4,5 W/mK in-plane)
 ALCOM PA66 910/34 TCD4 (≈ 2,5 W/mK in-plane)
 ALCOM PA66 910/34 TCD3 (≈ 1,5 W/mK in-plane)

The information contained in this publication is based on our current levels of knowledge and experience. Due to the abundance of possible influences in the course of processing and using our products, this information does not exempt processors from conducting their own tests and examinations. No legally binding assurance of particular properties or suitability for a defined application can be derived from this information. Recipients of our products shall be responsible for observing any industrial property rights as well as applicable legal requirements and regulations.