KRAIBURG TPE

Datasheet

AD/PAX/MR Series

For-Tec E

The AD/PAX/MR Series is your material solution for two-component-seals in electronic applications and soft-touch grips and handles of machine tools. The material provides an excellent resistance to skin oils, suncream, olive oil and acetone, accompanied by outstanding adhesion properties to semi-aromatic polyamids and polyarylamids such as PA 12, PA 6 und PA 6.6. The series is available in natural and black colors.

Typical applications

- Attenuators for electronic housings
- Connectors
- Handles (Powertool)
- Seals
- Seals for computer and laptopscreens
- Seals for housings

Material advantages

- Easy coloring
- Excellent adhesion to semi-aromatic Polyamides, Polyarylamids, Polyamides like PA 12, PA 6 and PA 6.61
- Excellent mechanical properties
- Resistance against skin oils, sunscreens, olive oil and acetone

Processing Method: Injection Molding

	Color	Hardness Shore A DIN ISO 7619 ShoreA	Density DIN EN ISO 1183-1 g/cm3	Tensile Strength [1] DIN 53504/ISO 37 MPa	Elong. at Break S2 [1] DIN 53504 / ISO 37 %	Tear Resistance DIN ISO 34-1 N/mm	Compr. Set 72h/RT DIN ISO 815 %	Compr. Set 24h/70°C DIN ISO 815 %	Compr. Set 24h/100°C DIN ISO 815 %	Adhesion Renault D41 1916 (PARA) [2] N/mm	Haftung Renault [2] Norm D41 1916 (PAX) N/mm
OC6OAN	natural	60	1.130	5.5	850	23.5	24	56	73	6.0	20.0
OC6OAZ	black	60	1.120	5.5	700	24.5	26	56	74	6.0	22.0
OC7OAN	natural	70	1.110	6.5	850	29.5	30	60	73	7.0	30.0
OC7OAZ	black	69	1.110	6.5	700	30.0	29	60	73	7.0	30.0
OC8OAN	natural	78	1.100	7.5	900	36.0	33	56	64	20.0	40.0
OC8OAZ	black	79	1.100	8.0	850	37.0	33	55	64	20.0	40.0

[1] Deviating from ISO 37 standard test piece S2 is tested with a traverse speed of 200 mm/min.

[2] The adhesion quality depends on mold design, product geometry and process parameters.

All values published in this data sheet are rounded average values.
Specification limits are based on three-fold standard deviation from the average value.

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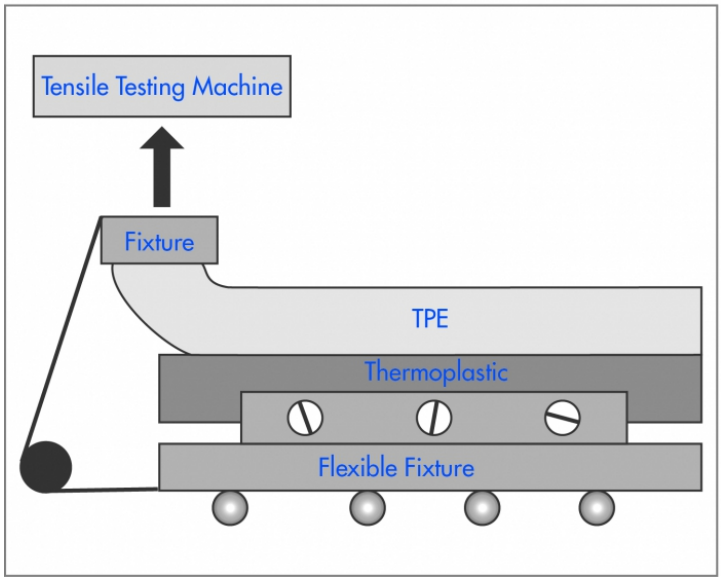
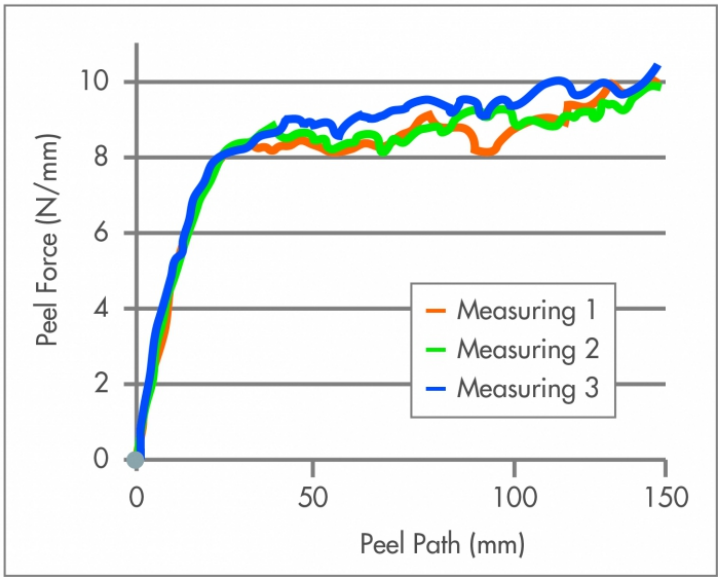
Description peel test

Peel test according to „Renault D41 1916“ standard

Test Setup



Example Diagramm as result of a peel test



The peel force is measured by
a tensile testing machine in N/mm , in relation to the peel path. Test piece dimensions: Thermoplastic part: 130 x 22 x 2 mm, TPE part: 130 x 20 x 2 mm.

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Processing Guideline Injection Molding	
Cylinder temperature	240 - 210 - 180 °C max. 250 °C (464 - 410 - 356 °F, max. 482 °F)
Hotrunner	Hot runner temperatures: 200 -250 °C (390 - 480 °F). The runner should be empty after a maximum of 2 - 3 shots.
Injection pressure	200 - 1000 bar (2900 - 14504 psi) (depending on the size and weight of the part).
Injection rate	In general, the fill time should not be more than 1–2 seconds.
Hold pressure	We recommend to derive the optimum hold pressure from determining the solidification point, starting with 40 % - 60 % of the required injection pressure.
Back pressure	20 - 50 bar (285 - 710 psi); if colour batches are used, higher back pressure is necessary.
Screw retraction	If an open nozzle is used processing with screw retraction is advisable.
Mold temperature	The mold temperature depends on the hard component. A temperature exceeding 90 °C (194 °F) should be avoided. The common temperature is 60 - 80 °C (140 - 176° F).
Pre drying	To achieve optimum mechanical values, drying the material for 2 - 4 hours at 60 - 80 °C (140 - 175 °F) is recommended.
Needle shut-off	With materials < 50 Shore the use of a needle seal nozzle is advisable.
Screw geometry	Standard 3-zone polyolefine screw.
Residence time	The residence time is to be set as short as possible with a maximum of 10 minutes.
Cleaning recommendation	For cleaning and purging of the machine it is appropriate to use polypropylene or polyethylene. Machine must be PVC-free.