

AD/POM Series
THERMOLAST® K

The AD/POM Series is your material solution for applications with excellent adhesion to POM. The compounds are available in natural and black colors.

Typical applications

- Bumpers
- Function and design elements
- Grommets
- Handles (hand tools and power tools etc.)
- Seals
- Thumb wheels

Material advantages

- Easy coloring (compounds in natural colors)
- Excellent adhesion
- Excellent processing behavior
- Insert molding possible
- Patented system for TPS and POM
- Pleasant surface feel (Soft touch)
- Suitable for automotive-interior
- UV resistance

Processing Method: Injection Molding

	Color / RAL DESIGN	Hardness DIN ISO 7619-1 ShoreA	Density DIN EN ISO 1183-1 g/cm ³	Tensile Strength ¹ DIN 53504/ISO 37 MPa	Elongation at Break ¹ DIN 53504/ISO 37 %	Tear Resistance ISO 34-1 Methode B (b)(Graves) N/mm	Adhesion to POM ² VDI 2019 two-component injection molding N/mm
TC4HAA	natural	47	1.050	3.0	500	13.0	4.7 (C)
TC4HAZ	black	47	1.050	2.5	500	12.0	3.7 (B)
TC5HAA	natural	50	1.070	3.5	600	16.0	4.2 (A)
TC5HAZ	black	52	1.070	3.5	600	13.5	
TC6HAA	natural	57	1.070	4.0	600	15.0	5.1 (D)
TC6HAZ	black	56	1.070	4.0	600	15.0	
TC6HBA	natural	59	1.100	4.5	500	20.0	
TC6HBZ	black	61	1.110	4.5	550	17.0	6.4 (D)
TC7HAA	natural	65	1.110	5.0	600	23.0	6.7 (D)



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TC7HAZ	black	65	1.110	5.0	600	23.0	
TC7HBA	natural	70	1.130	6.0	600	22.0	
TC7HBZ	black	72	1.130	6.0	600	21.5	8.2 (D)
TC8HAA	natural	77	1.150	7.5	600	28.0	
TC8HAZ	black	77	1.150	6.5	550	26.0	10.0 (D)

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

² Adhesion values to impact-modified POM

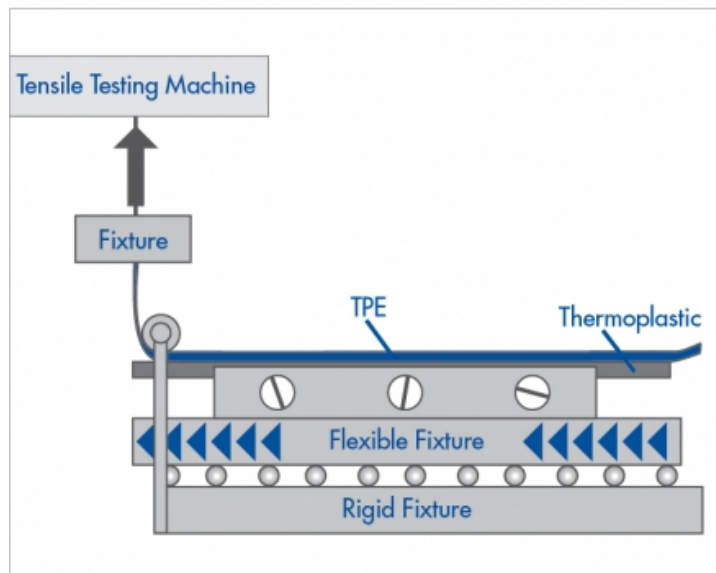
All values published in this data sheet are rounded average values.



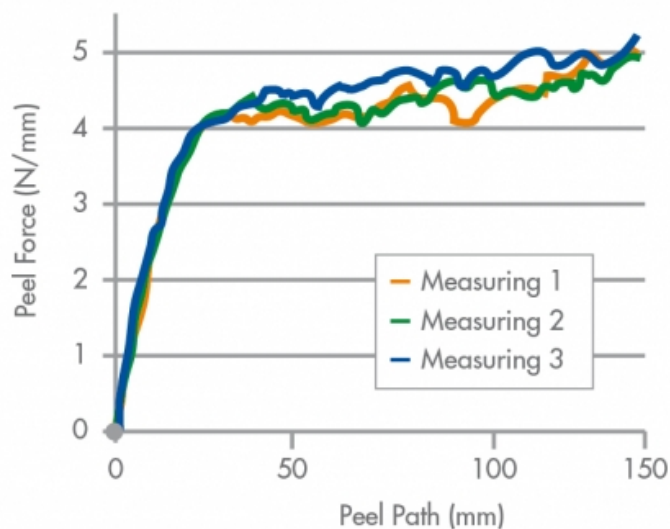
Description peel test

Peel test according to VDI guide line 2019

Test Setup



Example diagram for results of a peel test



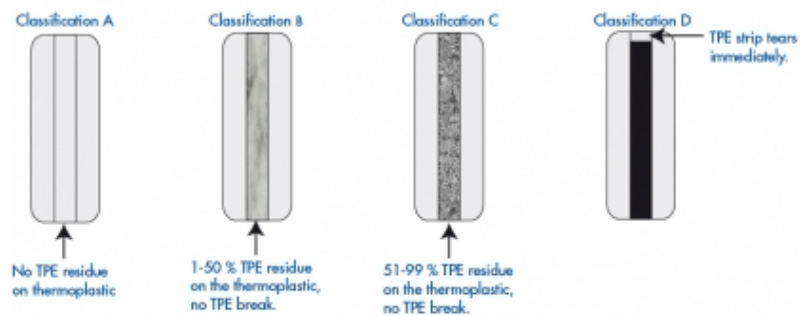
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Classification

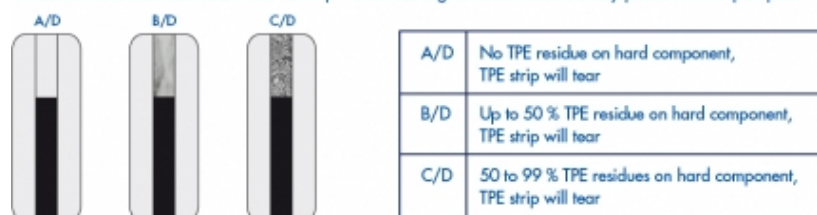
Peel test according to VDI Guideline 2019

For the VDI peel test we add two characters to the peel force value.
The first character describes the TPE residue on the hard component.



A	No TPE residue on hard component
B	Up to 50 % TPE residue on hard component
C	50 to 99 % TPE residue on hard component
D	TPE strip tears immediately

The second character describes if the TPE strip will tear during the measurement at any position on the peel path.



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Processing Guideline Injection Molding

Cylinder temperature	180 - 210 - 240 °C, max. 250 °C (360 - 410 - 460 °F, max. 480 °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 - 100 bar; if color batches are used, higher back pressure is necessary.
Screw retraction	If an open nozzle is used processing with screw retraction is advisable.
Mold temperature	80 - 110 °C (175 - 230 °F); below 80°C mold temperature the adhesion decreases significantly.
Predrying	To achieve optimum mechanical values, drying the material for 2 - 4 hours at 60 - 80 °C (140 - 175 °F) is recommended.
Needle valve	With materials < 50 Shore A the use of a needle valve is advisable.
Screw geometry	Standard 3-zone polyolefine screw.
Residence time	TPE: max. 10 Min. POM: max. 4 Min.
Cleaning recommendation	For cleaning and purging of the machine it is appropriate to use polypropylene or polyethylene. Machine must be PVC-free.

