KRAIBURG TPE

Datasheet

HTR/OR Series

HIPEX®

The HTR/OR Series is your material solution for applications requiring high temperature and oil resistance.

Typical applications

- Closures
- Fastenings
- Flexible Connections
- Seals

Material advantages

- Excellent heat resistance up to 150 °C
- Excellent resistance againstmotor and gearbox oil
- For injection molding
- Recyclable

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 %	Compr. Set 24h/120°C DIN ISO 815 %
HX6ICN	natural	58	1.100	5.0	300	13.5	30	54	58	64
HX6ICZ	black	61	1.100	5.0	300	13.5	30	54	58	69
HX8ICN	natural	72	1.100	6.0	250	19.0	31	55	59	69
HX8ICZ	black	72	1.100	6.0	250	19.0	31	55	59	66

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

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

This datasheet is an extract of the KRAIBURG TPE program. Please contact KRAIBURG TPE to select the compound suitable for the requirements.

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Processing Guideline Injection Molding	
Cylinder temperature	230-220-210 °C (446-428-410 °F)
Hotrunner	Hot runner temperatures: 180 - 220 °C (356 - 428 °F). The runner should be empty after a maximum of 2 - 3 shots.
Injection pressure	1200 - 2000 bar (18855 - 29010 psi); depending on 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 80 °C (175 °F) should be avoided. The common temperature is 40 - 60 °C (105 - 140° F).
Pre drying	Pre drying of the material of at least 2 h at 105°C is recommended. A longer pre-drying can improve the result. Processing with residual moisture below 0,05% 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 should be set as short as possible. If the residence time is too long, a distinctive smell will appear and the TPE shows "frothing".
Cleaning recommendation	For cleaning and purging of the machine it is appropriate to use polypropylene or polyethylene. Machine must be PVC-free.