



HD-ECO-TECH® is a quality brand for products made of polypropylene and polyethylene.

## SERVICE

Selection of our rotational moulding material considering the requirements of your final product

Perfectly matched selection of additives for thermal stability and flame retardancy

Improved chemical and physical properties

Customized surface finish of your products

Individual support from first consultation up to start of production



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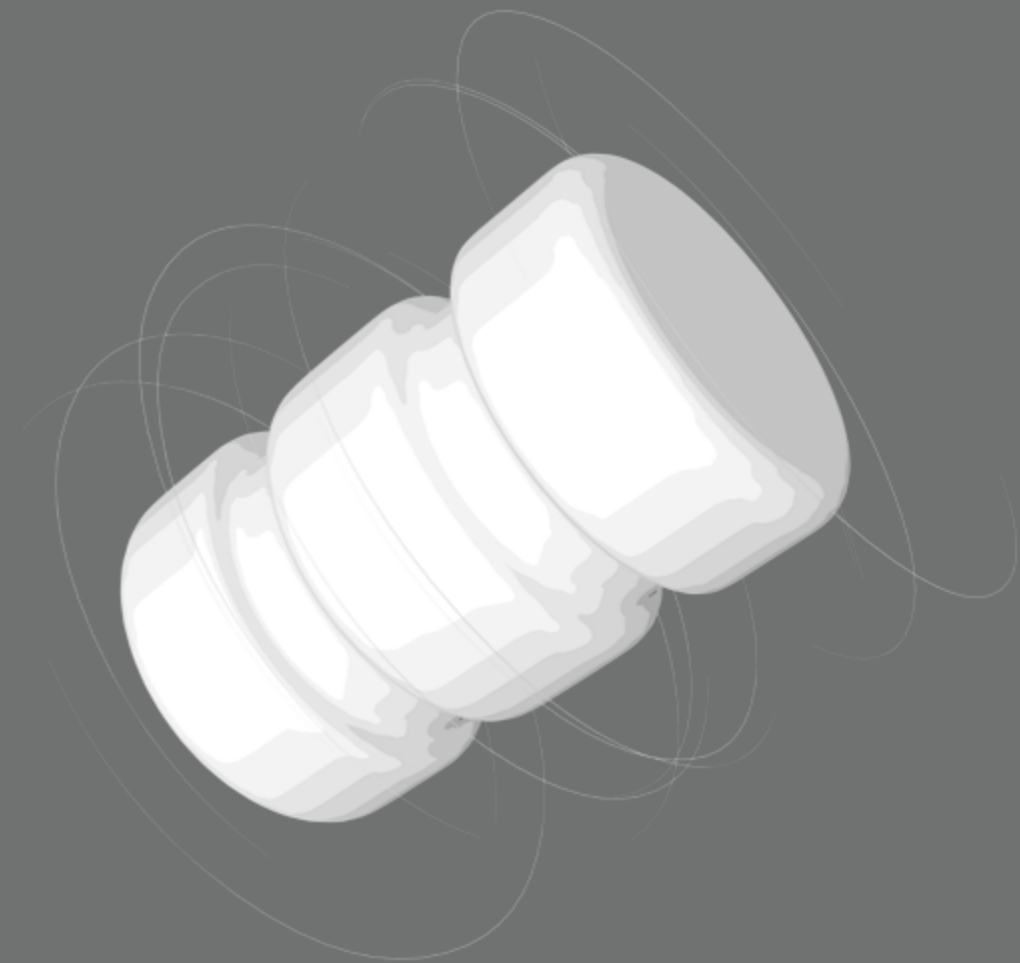
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an enterprise of



ROTATIONAL  
MOULDING  
PRODUCT SUMMARY



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# HD ECO-TECH®

## PP

## PE

	ISO	RM PPL 111050 UV	RM PPL 112000 UV	RM PPL 113900 UV	RM PPC 115950 UV	RM 10440 UV	RM 10635 UV   FR	RM 20935 UV
<b>Main Resin</b>		PPC	PPC	PPC	PPC	mMDPE	mMDPE	LDPE
<b>Density</b> [g / cm <sup>3</sup> ] 23 °C	1183	0,902	0,902	0,902	0,903	0,940	0,903   0,973 FR	0,935
<b>MFI</b> [g / 10 min] at (230 °C/2,16 kg)	1133/D	11	12	12	15	4	6   -	9
<b>Tensile Modulus</b> [MPa]	179	1.150	1.050	960	-	-	-   584 FR	960
<b>Flexural Modulus</b> [MPa]	178	1.050	960	900	950	730	700   -	600
<b>Tensile strength at Yield</b> [MPa]	527-2	22	19	17	20	21	18   15,6 FR	17
<b>Tensile Strength at Break</b> [MPa]	527-2	-	-	-	-	21	11   -	16
<b>Heat Deformation Temperature HDT</b> [°C]	752	-	-	-	44 (1,8 MPa   120°C/h) 85 (0,45 MPa   120°C/h)	-	-	-
<b>Elongation Strength at Yield</b> [%]	527-2	18	20	22	12	11	-	-
<b>Elongation Strength at Break</b> [%]	527-2	-	-	-	-	800	>700   400 FR	>700
<b>Environmental Stress Crack Resistance ESCR</b> [h]	22088 ASTM D1693	-	-	-	-	450 (10%) >1.000 (100%)	450 (10%)   - >1.000 (100%)   -	>500 (10%) >1.000 (100%)
<b>Izod Notched Impact Strength</b> [KJ / m <sup>2</sup> ]	180	32 (23 °C)	48 (23 °C)	66 (23 °C)	>64 (23 °C) 10 (-20 °C)	-	-	-
<b>Charpy Notched Impact Strength</b> [KJ / m <sup>2</sup> ]	179-1	-	-	-	-	>150 (23 °C) >150 (-30 °C)	>200 (23 °C)   26,7 FR >160 (-30 °C)   -	-
<b>Shore Hardness</b> [KJ/m <sup>2</sup> ]	R-868	60D	56D	52D	51D	-	59D   -	53D
<b>Vicat Softening Point</b> [°C]	306	66 (50 N) 125 (10N)	65 (50 N) 120 (10N)	63 (50 N) 118 (10N)	62 (50 N) 128 (10N)	126 (50 N)	121 (50 N)   -	113 (50 N)
<b>Oven Temperature</b> [°C]		270 - 300	270 - 300	270 - 300	270 - 300	200 - 260	200 - 260   -	200 - 260
<b>Tooling Temperature</b> [°C]		215 - 220	210 - 215	205 - 215	220 - 230	160 - 200	160 - 200   -	160 - 200
<b>Melting Point</b> [°C]	3146	140	135	132	148	126	123   123 FR	113
<b>PIAT</b> [°C]		218	214	210	225	186	180   -	176
<b>Description</b>		PP nucleated random copolymer UV and thermally stabilised High translucence High stiffness Excellent surface finishing	PP nucleated random copolymer UV and thermally stabilised High translucence Excellent surface finishing	PP nucleated random copolymer Easy processing (similar to PE) UV and thermally stabilised High translucence Excellent surface finishing High impact resistance at low temperatures	PP block copolymer UV and thermally stabilised High impact resistance at low and high temperatures High stiffness Heat deformation stability at high temperatures	MDPE metallocene with Hexene (C6) comonomer UV and thermally stabilised High density High impact resistance at low temperatures High gloss	MDPE metallocene with Hexene (C6) comonomer UV and thermally stabilised High MFI and lower density High impact resistance at low temperatures High gloss	LDPE medium density with Butene (C4) comonomer UV and thermally stabilised Good mechanical properties Excellent surface finishing
<b>Application</b>		Design items; lampshades; luminated advertisements; neon signs; heat exchangers; technical products (diesel, grease and lye proof)	Hydraulic tanks; water storage tanks up to 70 °C; control shafts; technical parts; toys; drinking water tanks	For monolayered parts; heat exchangers up to 90 °C; water sport articles (kayaks, boats, canoes, buoys); technical parts; fenders for agriculture machines	Earth shafts; small and middle sized parts with thin walls; water tanks; heat exchangers, toys; containers	Diesel and AdBlue contact approved (certificate available); for high volume tanks from 2000 litres on (water, diesel, chemicals); toys; IBCs and technical parts	Diesel and AdBlue contact approved (certificate available); for small and middle sized tanks (water, diesel and chemicals); toys; water sport (canoes, kayaks, boats); IBC's; technical parts in automotive and agriculture	For small parts; plant pots; design items or tools with challenging geometries and complicated dimensions; leisure articles (sports, toy); lampshades of all kind; technical products



**HD-ECO-TECH® for the optimized production of heat-, alkaline- and acid-resistant products for all applications within rotational moulding.**

## MICROGRANULES

Raw materials in all colors (i.e. RAL or tailor-made) and with all special features required for rotational moulding applications:

- Antistatic behaviour
- Brilliant colors
- Extensive range of materials for rotational moulding (color compounds incl. additives)
- Excellent filling behaviour for difficult geometric tools
- No dust or danger of explosion
- Customized packaging
- All products also available as powder or standard granules

The values provided in this document are based upon technical information from raw material suppliers believed to be reliable. The values and results have been obtained under controlled laboratory testing conditions. Own tests by the user under target conditions are recommended. HD Kunststoffe therefore can not assume any legal responsibility for the use and reliance of the materials and their data presented hereby. We expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of our products.