



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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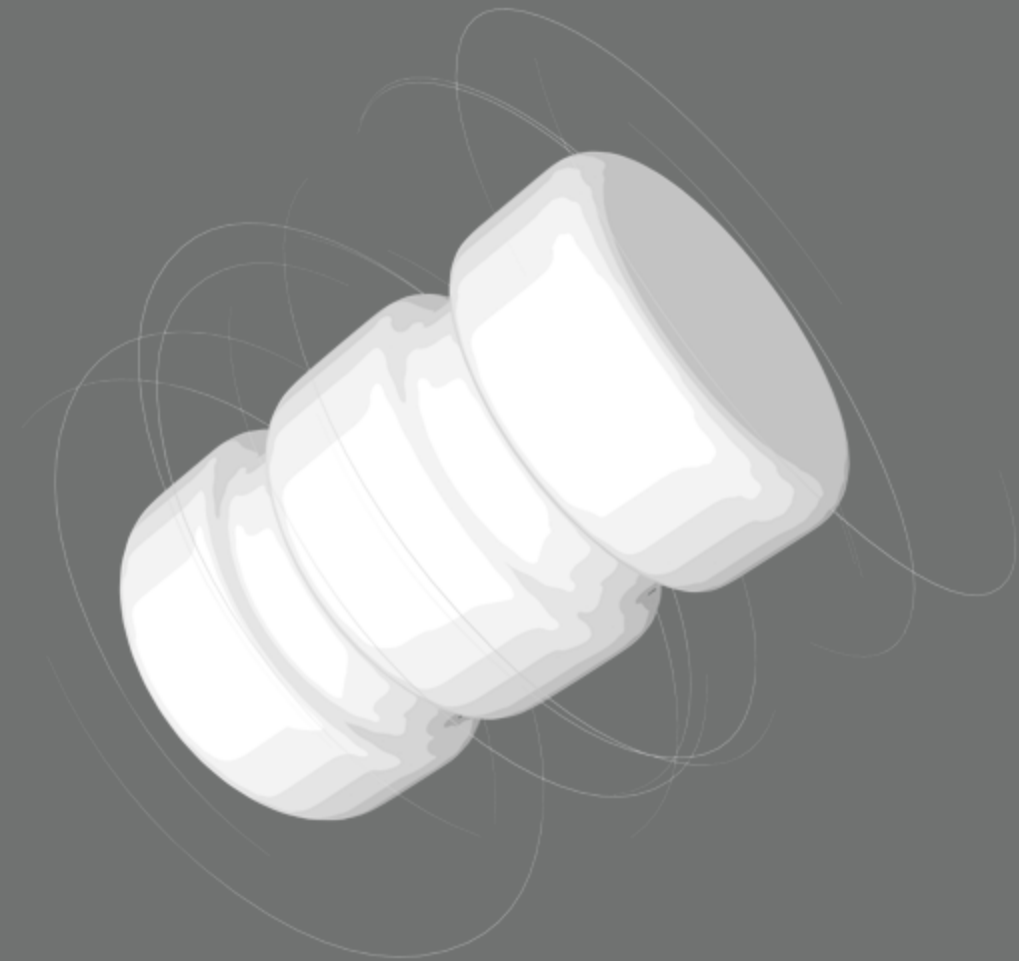
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an enterprise of



ROTATIONAL
MOULDING
PRODUCT SUMMARY



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HD ECO-TECH®

PP

PE

| | ISO | RM PPL 111050 | RM PPL 112000 | RM PPL 113900 | RM PPC 115950 | RM 10440 UV | RM 10635 UV FR | RM 20935 UV |
|--|---------------------|--|---|---|--|--|---|---|
| Main Resin | | PPC | PPC | PPC | PPC | mMDPE | mMDPE | LDPE |
| Density [g / cm ³] 23 °C | 1183 | 0,902 | 0,902 | 0,902 | 0,903 | 0,940 | 0,935 0,973 FR | 0,935 |
| MFI [g / 10 min] at (230 °C/2,16 kg) | 1133/D | 11 | 12 | 12 | 15 | 4 | 6 - | 9 |
| Tensile Modulus [MPa] | 179 | 1.150 | 1.050 | 960 | - | - | - 584 FR | 960 |
| Flexural Modulus [MPa] | 178 | 1.050 | 960 | 900 | 950 | 730 | 700 - | 600 |
| Tensile strength at Yield [MPa] | 527-2 | 22 | 19 | 17 | 20 | 21 | 18 15,6 FR | 17 |
| Tensile Strength at Break [MPa] | 527-2 | - | - | - | - | 21 | 11 - | 16 |
| Heat Deformation Temperature HDT [°C] | 752 | - | - | - | 44 (1,8 MPa 120°C/h) 85 (0,45 MPa 120°C/h) | - | - | - |
| Elongation Strength at Yield [%] | 527-2 | 18 | 20 | 22 | 12 | 11 | - | - |
| Elongation Strength at Break [%] | 527-2 | - | - | - | - | 800 | >700 400 FR | >700 |
| Environmental Stress Crack Resistance ESCR [h] | 22088 ASTM D1693 | - | - | - | - | 450 (10%) >1.000 (100%) | 450 (10%) - >1.000 (100%) - | >500 (10%) >1.000 (100%) |
| Izod Notched Impact Strength [KJ / m ²] | 180 | 32 (23 °C) | 48 (23 °C) | 66 (23 °C) | >64 (23 °C) 10 (-20 °C) | - | - | - |
| Charpy Notched Impact Strength [KJ / m ²] | 179-1 | - | - | - | - | >150 (23 °C) >150 (-30 °C) | >200 (23 °C) 26,7 FR >160 (-30 °C) - | - |
| Shore Hardness [KJ/m ²] | R-868 | 60D | 56D | 52D | 51D | - | 59D - | 53D |
| Vicat Softening Point [°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) |
| Oven Temperature [°C] | | 270 - 300 | 270 - 300 | 270 - 300 | 270 - 300 | 200 - 260 | 200 - 260 - | 200 - 260 |
| Tooling Temperature [°C] | | 215 - 220 | 210 - 215 | 205 - 215 | 220 - 230 | 160 - 200 | 160 - 200 - | 160 - 200 |
| Melting Point [°C] | 3146 | 140 | 135 | 132 | 148 | 126 | 123 123 FR | 113 |
| PIAT [°C] | | 218 | 214 | 210 | 225 | 186 | 180 - | 176 |
| Description | | PP nucleated random copolymer thermally stabilised High translucence High stiffness Excellent surface finishing | PP nucleated random copolymer thermally stabilised High translucence Excellent surface finishing | PP nucleated random copolymer Easy processing (similar to PE) thermally stabilised High translucence Excellent surface finishing High impact resistance at low temperatures | PP block copolymer 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 |
| Application | | 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.