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SS-12: MIDILENA III-J800^{1,2} STANDARD SPECIFICATION

APPLICATIONS: INJECTION MOULDING FOR PRODUCTS THAT INVOLVE VERY HIGH FLOW - GENERAL PURPOSE, TRAYS, CUPS

| PROPERTIES | UM | <u>LIMITS</u> | | TEST METHOD |
|--|----------------------|---------------|--------------------------|----------------------------------|
| | | MIN. | MAX. | |
| Aspect: Stabilized, uniform color graare allowed. | nules without extrar | neous matter | ⁻ . Max.0.1 % | (m/m) different color variations |
| Physical | | | | |
| Melt Flow Index | g/10min | 14.0 | 18.0 | ASTM D 1238 |
| (230 °C/2.16 kg) | | | | |
| Density at 23 °C, | g/cm³ | 0.905 | 0.917 | ASTM D 1505 |
| Mechanical | | | | |
| Tensile Strength at Break | Mpa | 25 | | MSI-2 |
| (23 °C, v=50mm/min) | | | | |
| Elongation at Break | % | 500 | | MSI-2 |
| (23 °C, v=50mm/min) | | | | |
| IZOD Impact Strength | J/m | 15 | | ASTM D 256 |
| (23 °C, notched specimen) | | | | |
| Flexural Modulus | MPa | 1100 | | SR EN ISO 178 |
| (23 °C, v=2mm/min, secant) | | | | |
| <u>Thermal</u> | | | | |
| VICAT Softening Temperature | °C | 150 | | ASTM D 1525 |
| (A /50°C/h/10N) | | | | |

2.Quality control: Control is done on lots.

- -Each lot will have max 200 tons. The lot will contain product of the same grade.
- -During testing, the product must comply with all parameters depicted in this standard specification.
- -In case of litigation, the quality control will be done in the client representative presence, using the samples kept for these cases, sampling being done in accordance with the sampling procedure.

NOTE: All tests are performed using the supplier's testing machines.

3. Sampling procedure:

- Sampling will be done continuously during the lot formation.
- Initial samples are mixed for homogenization and reduced by the "quarter method" to about 2kg.
- The bags containing the samples are sealed and labeled.

NOTE: One sample is analyzed in the supplier laboratory, and one is kept three months after delivery, for control in case of litigation.

- 4. Delivery: CP4 euro pallets (1375 kg PP/pallet), big-bags.
- 5. Time of guarantee: Three months after delivery
- 6. Documents: Quality certificate.
- 7. Handling, storage and transport information³: According to "SAFETY DATA SHEET"-FDS-01

Notes: 1) Propylene homopolymer with basic stabilization; propylene monomer is the only monomer used for producing the macromolecular product. For producing the above mentioned grade we are not using plasticizers or coloured masterbatches. The product has natural color. This monomer is listed in and is in conformity with Directive 2002/72/CE and HG 512/7.04.2004.

- 2) The product is food grade approved by Romanian Ministry of Health in accordance with the national sanitary legislation.
- 3) If polymer is stored in conditions of high humidity and fluctuating temperatures, then atmospheric moisture can condensate inside the packing. If this occure, it is recommended the pellets to be dried before use. During the storage, polypropylene should not be exposed to UV radiation. Producer does not take responsibility for any damage caused by incorrect storage.

Management quality system is certified according to EN ISO 9001:2000 and EN ISO 14001:1996 by Germanischer Lloyd

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Material Safety Data Sheet for Rompetrol Petrochemicals polypropylene is available for our customers from Sales&Marketing Rompetrol Petrochemicals offices. It contains necessary information in order to ensure customers' own safe handling and processing activity.

The information that follows is pertinent only to the delivered product. Further additives or other processing aids will have their own documentation that needs to be studied.

Safety

Polypropylene is among the most inert commercial polymer and under normal handling induces no hazard. Food or sanitary grades approved by Romanian Ministry of Health in accordance to national sanitary legislation have the notice inserted on standard specification's footnote.

Product housekeeping should follow suitable procedure. Workers should avoid skin or eyes contact with molten polymer. As a minimal precaution to prevent eyes injury, safety glasses are indicated.

Fabrication areas should be ventilated, in order to ensure fumes or vapors elimination and workers should be assured of supply of fresh air. Workplace environments should be kept clean and free of dust.

Fire hazard

Polypropylene is a combustible substance, but under normal housekeeping conditions there is no ignition hazard. In contact with flame it becomes soft, flows, ignites and burns with a light flame until exhausting (if it isn't stabilized with a flame retardant agent). Therefore it has to be handled and stored avoiding contacts with open flames or other ignition sources. While burning, it releases high heat and a dense black smoke. In enclosed areas, fire fighters should be provided with self-contained breathing apparatus.

Recycling

Polypropylene is a recyclable material. It is preferably that production rejects and conversion wastes be recycled instead of being disposed.

Disposal

Disposal of any wastes should respect all national and local valid regulations. If these regulations are met, following is applicable for polypropylene homopolymer, as supplied; additives, fillers or other addition involves their consideration, on the afferent documentation basis. Polypropylene homopolymer can be disposed by landfill or controlled incineration, respecting valid regulations regarding gaseous or solid particles discharges. Due to the high heat value, incineration has to be done only in units designed to handle high heats of combustion. In case it is landfilled: polypropylene is inert, does not degrade quickly, form a strong and permanent soil base and does not release gases or other compounds known to pollute water resources.

The mission assumed by Rompetrol Petrochemicals is to build a strong partnership supplier/customer. Assuming this purpose, Rompetrol Petrochemicals intents to offer products of high quality that satisfy all customers' needs and expectations, to keep permanently contact in order to acknowledge processing troubleshooting, to ensure technical support to solve them, to develop new products for existing or potential markets. Due to the fact that it is a company that recognizes community concerns regarding his activity potential impact on the environment, Rompetrol Petrochemicals encourages his customers to review their processes from the human health and environment point of view. To ensure that its products are not used in ways for which they are not intended or tested, Rompetrol Petrochemicals offers to its customers product literature, including suitable Material Safety Data Sheet, that should be consulted prior to use its products.

NOTE: Because use conditions and valid regulations may differ from one location to another and may change in time, the customer is responsible for deciding whether the product and the information in this document are suitable for his use and for ensuring that his workplace or disposal practices are in compliance with valid legal regulations.

NOTE REGARDING MEDICAL APPLICATION RESTRICTIONS: Rompetrol Petrochemicals does not recommend any company product for applications that involve human tissues or internal fluids contacts - regardless of the contact length of time, for cardiac devices, for medical device components that support human life, as well as for applications that have connections with human reproduction.