



National Institute of Standards & Technology

Certificate

Standard Reference Material 1473

Low Density Polyethylene Resin

This Standard Reference Material (SRM) is intended primarily for use in calibration and performance evaluation of instruments used in polymer technology and science for the determination of the melt flow rate. The SRM is supplied as white pellets of polyethylene in a 60 gram unit.

This material is certified for melt flow rate using ASTM Method D 1238-89. Standard test condition 190/2.16 was used. Thus, the flow rate was determined at $190.0 \pm 0.1^\circ\text{C}$ using a load of 2.16 kg. The flow rate of the melt was measured by a manually operated extrusion plastometer. Under this condition the melt-flow rate for this material is 1.29 g/10 minutes with a standard deviation for a single measurement of 0.020 g/10 minutes and with 41 degrees of freedom. [1]

The supplier for this material was Quantum Chemical Corp., USI Division, Cincinnati, OH.

Notice and Warnings to Users

Expiration of Certification: This certificate will be valid for five years from the date of shipment.

Storage: SRM 1473 should be stored in the tightly closed, original bottle under normal laboratory conditions.

The technical coordination leading to certification of this material was provided by C.C. Han with technical measurement and data interpretation provided by J.R. Maurey and C. M. Guttman of the NIST Polymers Division.

The technical and support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program by J. C. Colbert.

REFERENCE

- [1] J. R. Maurey, and C. M. Guttman, Studies on the Melt Flow Rate of SRM 1473, A Low Density Polyethylene Resin, NISTIR 4627.

Gaithersburg, MD 20899
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William P. Reed, Chief
Standard Reference Materials Program