Errata Notice

This document contains references to PSS or Polymer Standards Service. Please note that PSS is now Agilent. This document will be republished as an Agilent document in the future.

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10049 - Column Application Note Characterization of Poly(butylene terephthalate)



Poly(butylene terephthalate) (PBT) is a thermoplastic polyester of terephthalic acid and 1,4-butanediol. Characteristic for PBTs are high mechanical stability and hardness at low temperatures. PBTs are used in electronic industry (insulators) and for vehicle construction. Increasing amounts of PBTs are used for fibers.

Experimental Setup

Mobile Phase: Stationary Phase: Flow rate [mL/min]: Temperature [°C]: Detection: Calibration: Data processing:

Hexafluoroisopropanol Potassium trifluoroacetate 0.1M PSS PFG 1,00 25 Shodex-RI71 ReadyCal-Kit Poly(methyl methacrylate) PSS WinGPC

P/N 203-0011 (set of 3) OR pfa083007lis (1 linear) P/N 203-0012 (set of 3) OR pfa083007lim (1 linear)

P/N 203-0013 (set of 3) OR pfa083007IxI (1 linear)

Recommandations for Sample Concentration

2 g/L 1-2 g/L

100

0.5 g/L or less

3.0 - 5.0 g/L

narrow PDI M 100 Da - 10 000 Da: M 10 000 Da - 1 000 000 Da: M > 1 000 000 Da: broad PDI (>1.5) all molar masses: Injection volume [µL]:

Suitable Columns

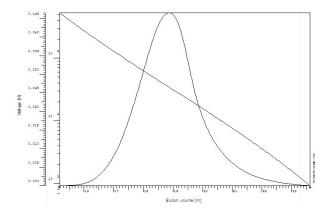
low molecular weights: medium molecular weights: high molecular weights: ultrahigh molecular weights:

Elugram and Calibration

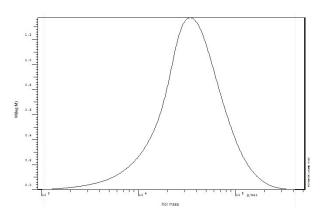
separation on PSS PFG



Molar Mass Distribution



separation on PSS PFG





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DE62694642

5994-6287EN July 1, 2023