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# Opaque Polydisperse Standard

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|---|---|
| Art. ID | WHS-AG212 |
| Unit | 0,1 g |
| Deliverydetails | No Dangerous Good /not restricted |

Description

Most particle size reference standards are transparent in nature including glass and latex microspheres. However, in some optically based particle sizing techniques, the theories used are based on spherical, single, opaque particles in a sea of liquid. For example, in Laser Diffraction, two theories are used: Fraunhofer and Mie scattering theories. In the former, transparency can affect the interpretation of the theory giving rise to secondary peaks, especially at low particle sizes /// Also in optical zone sensing, where particle size is determined from particle shadows against a photocell, particle size can be underestimated because of the apparent hollow centres of the transparent spheres due to light transmission /// Finally, in optical microscopy, edge detection of a particle is critical in the analysis. Opaque particles produce a much sharper image than transparent ones and therefore produce much more accurate results.