

## Accessory for RheoScope

### Tool for checking the optical quality of the RheoScope module

A new tool for checking the quality of images acquired with the RheoScope module has been developed. This tool consists of a closed cell with a reflective upper plate and a lower glass plate, containing a watery solution with standard particles with diameters of 1.5, 4, 8 and 20  $\mu\text{m}$ .

In order to use the tool it is placed directly on top of the RheoScope module after removing the measuring plate cover. An image of the solution with the standard particles acquired with the measuring and evaluation software HAAKE RheoWin is then exported and loaded into the image and analysis software SPIP in order to determine the particle sizes (for details see product information P009).

The particle sizes determined with the SPIP software should be comparable with the certified particle sizes. The resolution of the RheoScope module is 1  $\mu\text{m}$  and has to be taken into account. Particles with a diameter of 1.5  $\mu\text{m}$  are in the lowest measuring range of the RheoScope module.

Solutions with a single type of standard particles are also available. These solutions are delivered in 20 ml containers and come with certified values of the diameter of the particles and their uncertainty. The sample quantity is sufficient for approximately 10 measurements depending on which cone / plate diameter is used.

### Order Information:

222-1835 Tool for checking the optical quality of the RheoScope module,  
 Solution with standard particles with diameters of 1.5, 4, 8 and 20  $\mu\text{m}$   
 799-3506 Standard particles 1.5  $\mu\text{m}$  +/- 0.04  $\mu\text{m}$  (20 ml)  
 799-3507 Standard particles 5.09  $\mu\text{m}$  +/- 0.07  $\mu\text{m}$  (20 ml)  
 799-3508 Standard particles 19.98  $\mu\text{m}$  +/- 0.10  $\mu\text{m}$  (20 ml)  
 098-5052 SPIP image analysis software consisting of base module with roughness  
 and grain analysis

### Key-words

- HAAKE MARS
- RheoScope module
- Standard particles
- Particle size distribution



Fig. 1: The tool laying on the RheoScope module with the measuring plate removed (left), the tool in measuring position on top of the RheoScope module (right)

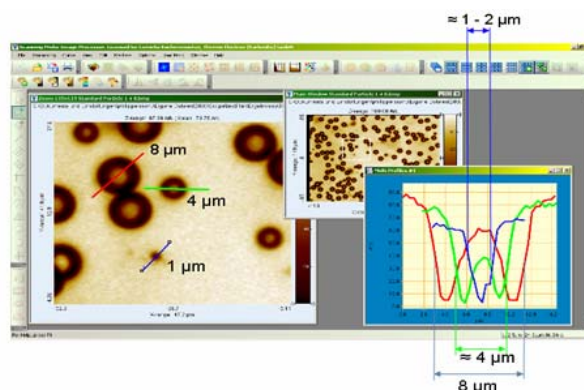


Fig. 2: Screenshot of the SPIP software: An image of a mixture containing different standard particles acquired with the RheoScope module (middle); magnified view with three selected particles (left); intensity as a function of diameter of the selected particles corresponding to the particle size (right)

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