



2.2.12 Cells with Two Chambers

with lid or stopper made of PTFE

These cells are used for the measurement of one or two samples together or in series.

The partition between chambers is ground and polished in the same manner as the windows. Cell model 238 has a cut-out in the partition to permit mixing of the fluids in both chambers. The size and position of the cut-out has been chosen so that unintentional mixing due to capillary action is prevented. The cells are either open on the top or are equipped with a cover and stoppers.

Catalogue Number	Window Material	Light Path mm	Outside Dim. H x W x D mm	Inside Width mm	Base Thickn. mm	Volume μ l	Number of Windows	Remarks
230-QS	Quartz SUPRASIL	2 x 4.375	45 x 12.5 x 12.5	9.5	1.5	2 x 1400	3	
238-QS	Quartz SUPRASIL	2 x 4.375	46 x 12.5 x 12.5	9.5	1.5	2 x 1000	3	with 2 stoppers



230



238

2.2.13. Cells for Measurements in the Infrared Range

Listed on the following pages are the cells which are available for measurements in the infrared range. The cells are fitted with windows of SUPRASIL 300 quartz and carry the mark "QX". Our range of infrared cells consists of the most frequently requested models. All other cells listed in this catalogue can be manufactured, to special order, with windows of SUPRASIL 300 quartz.

SUPRASIL 300 is free from OH and transmits light with wavelengths of up to 4000 nm. For an empty cell, with 1.25 mm thick windows made of SUPRASIL 300, we guarantee a transmittance of at least 80 % for light of between 200 nm and 3500 nm.

Window Materials for the Infrared Range

For measurements at wavelengths above 4000 nm there are a variety of materials available, not all of which are suitable for the production of cells. For these measurements we offer windows made of IR transmitting materials such as aluminium oxide (Al_2O_3 , sapphire), calcium fluoride (CaF_2) and silicon (Si). Since these materials cannot be directly fused by the Hellma process, another method of joining is used which also offers good thermal stability and chemical resistance.

Cells of this type are offered in the 100 and 120 series, as well as in custom orders. Windows made of the materials mentioned above can also be delivered on request. For more information refer to chapter 2.4.9. Flat Optics.

For information about the handling of cells with stoppers please see chapter 2.1.6.