

# ULTRON HF-MBS

## (Monolithic Bare Silica Capillary)

### Instruction manual

#### 1. Introduction

Thank you for purchasing a an ULTRON HF-MBS column (Monolithic Bare Silica Capillary). The ULTRON HF-MBS is an unmodified monolithic bare silica capillary tube, which is the base of the ULTRON HF series capillary columns for high-resolution separation. It is possible to use the ULTRON HF-MBS column for your research and development by passing and reacting with silylating agents to make your own column with an unique stationary phase.

ULTRON HF-MBS columns, which are manufactured under highly controlled conditions, must pass a series of strict tests before being accepted for shipment. To ensure optimal performance and durability of the capillary, please read the following instructions carefully before using this column.

#### 2. Specifications

Name	ULTRON HF-MBS
Size	0.375 mm O.D x 0.1 mm I.D x 750 mm length
Modifiable range	0.1 mm I.D x 750 mm length
Permeability	4 - 7 × 10 <sup>-14</sup> m <sup>2</sup> (Column back pressure equivalent to 5 - 7 μm particle packing material)
Theoretical plates	100,000 to 180,000 plates at to peak (Theoretical plate height equivalent to 2 - 3.5 μm packed particles)

#### 3. Precautions for use

- Wear suitable protective gear such as rubber gloves and safety glasses while handling.
- Do not subject the capillary to sudden shock, striking or dropping, rubbing with a metal etc., because the capillary is made out of thin quartz tube which is delicate to scratches. The capillary may break due to fine scratches or similar causes.
- It is possible to bend the capillary to R=100 mm. If  $R \geq 100$  mm, it will cause breakage of capillary tube.
- The recommended pH range of the mobile phase is 2.0 - 8.0. Exceeding the pH range will lead to rapid deterioration.
- Store the column at room temperature and normal humidity.

The ULTRON HF-MBS is shipped under highly controlled conditions. However, if you should find any defect, please contact your dealer or Shinwa. Note that Shinwa does not warrant the product against column life or deterioration caused by the failure to follow the above instructions.



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