



friedrich & dimmock, inc.

GLASS PRODUCTS FOR
INDUSTRY • SCIENCE • RESEARCH • OPTICS

DATA SHEET

Heraeus

OPTICS

HLQ - 200

HLQ - 200 - T

HLQ - 200 - V

HLQ - 200 - V40

HERAEUS LAMP QUALITY (HLQ) LOW COST QUARTZ ENVELOPES

DESCRIPTION:

HLQ-200 low cost tubing is produced by a single step electrical fusion process. It has some airlines and bubbles. The tubing is drawn with a die and mandrel and therefore has tight ID and OD tolerances. The cost is lower than most other fused quartz tubing because it is produced with one-step in large batch quantities. As drawn, HLQ-200 tubing typically has 80 to 100 ppm OH. It is also available annealed with a very low OH content.

Unannealed HLQ-200 should only be used for outer envelopes and should not be used as a lamp envelope when exposed directly to the lamp discharge (i.e. the interior of the lamp) because unannealed HLQ-200 contains free hydrogen which may shorten tube life. Annealing removes the hydrogen which causes the formation of OH.

TYPICAL APPLICATIONS:

HLQ-200

- Reprographic Lamps
- Lamp Protective Sleeves
- Xenon Flash Lamps

HLQ-200-V

- Tungsten Halogen Lamps
- Deuterium Arc Lamps
- UV Sterilization Lamps
- Reprographic Lamps
- UV Curing Lamps
- Low Pressure Mercury Lamps

OH CONTENT:

HLQ-200	typically 80 to 100 ppm OH (unannealed)
HLQ-200-T	annealed to typically 5 ppm OH, guaranteed < 8 ppm
HLQ-200-V	vacuum annealed for 8 hours to typically 1 ppm OH, guaranteed < 3 ppm
HLQ-200-V40	vacuum annealed to typically 0 - .5 ppm OH, guaranteed < 0.5 ppm

(see transmission curve on reverse)

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P.O. Box 230 • Millville NJ 08332 USA

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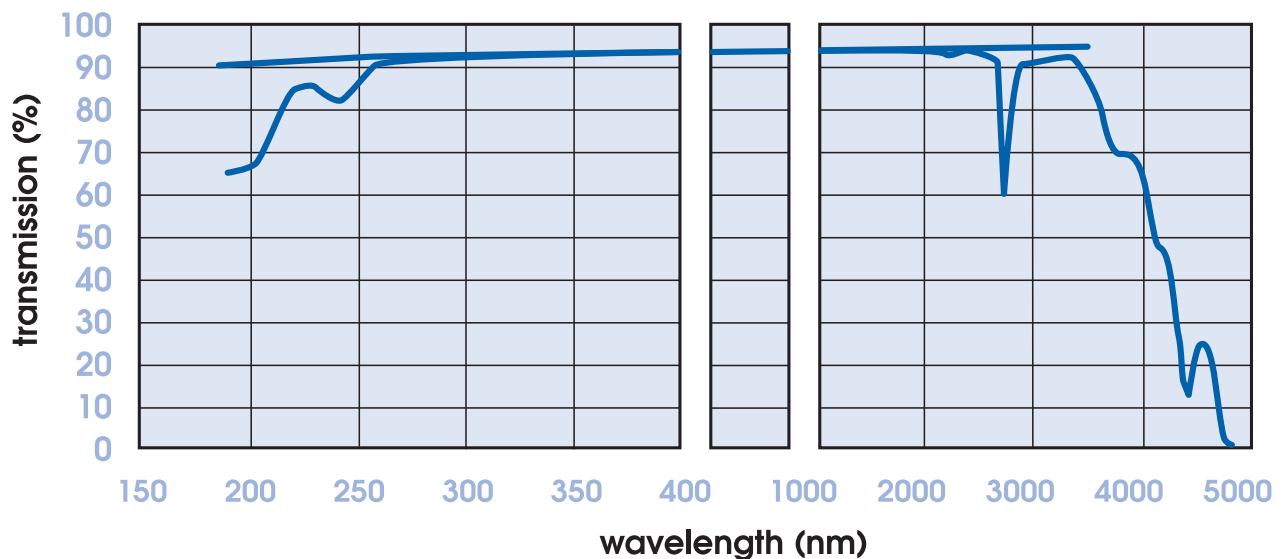
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HLQ 200, not annealed
(path length: 2mm)



Typical spectral transmission including Fresnel reflection loss. The uppermost nearly straight line indicates the calculated Fresnel reflection loss of two uncoated surfaces.

CUSTOM FABRICATION

We can fabricate quartz and glass tubing to any custom profile that you may require. Multiple bores with precise center-to-center distances or mixed geometries (e.g. square I.D. w/round O.D.) are not a problem. Our proprietary manufacturing process yields smooth, pristine and precise bores for your demanding quartz needs!

Fast, effective and concise engineering assistance is available from concept to prototype to finished product. Fax or e-mail a drawing today and avail yourself of over 84 years of glass & quartz expertise!

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