# Patch Clamp Glass Capillary glass

Custom 8520 glass has been shown to be equal in noise performance to the discontinued Corning 7552

Choosing patch clamp glass is generally based on noise performance and the ability to form and maintain a seal. No single type of glass works best in all applications and some trial and error is usually required to find the type yielding optimum results in your experiment. Patch glass is manufactured without an inner filament. This glass is offered in both the standard and premium models. The premium glass has fire polished ends and is cleaned with deionized water before being packed in dust-free containers.

# **Custom 8520 Patch Glass**



# Now Available in Premium Line!

The custom patch glass from Clark was introduced in 1997 as a substitute for the Corning 7052 glass, a favorite amongst researchers performing patch clamping. Initial tests showed the 8520 glass to be equal to the 7052 in noise performance. More importantly, seals were formed faster and maintained for longer periods.

## **Specifications**

| Composition           | >10% SiO <sub>2</sub> , >10% B <sub>2</sub> O <sub>3</sub> , >1% Al <sub>2</sub> O <sub>3</sub> , >1% K <sub>2</sub> O, <1% Na <sub>2</sub> O<br><1% Li <sub>2</sub> O, <1% ZnO, <1% As <sub>2</sub> O <sub>3</sub> , <1% TiO <sub>2</sub> , <1% ZrO <sub>2</sub> |
|-----------------------|---|
| Softening Temperature | 720°C   |
| Dielectric Constant   | 4.6   |
|                       |   |

## Premium Custom 8520 Patch Glass

|            |           | OD   | ID   | Lengt | h       |  |
|------------|-----------|------|------|-------|---------|--|
| Order #    | Model     | mm   | mm   | mm    | Qty/Pkg |  |
| W4 64-0817 | G85150T-3 | 1.50 | 1.16 | 75    | 225     |  |
| W4 64-0818 | G85150T-4 | 1.50 | 1.16 | 100   | 225     |  |
| W4 64-0819 | G85165T-3 | 1.65 | 1.28 | 75    | 190     |  |
| W4 64-0820 | G85165T-4 | 1.65 | 1.28 | 100   | 190     |  |

# **Clark Custom 8520 Patch Glass**

|            | OD   | ID   | Length |      |  |
|------------|------|------|--------|------|--|
| Order #    | mm   | mm   | mm     | Qty. |  |
| W4 30-0091 | 1.2  | 0.93 | 75     | 350  |  |
| W4 30-0089 | 1.2  | 0.93 | 100    | 350  |  |
| W4 30-0090 | 1.2  | 0.93 | 150    | 350  |  |
| W4 30-0094 | 1.5  | 1.16 | 75     | 225  |  |
| W4 30-0092 | 1.5  | 1.16 | 100    | 225  |  |
| W4 30-0093 | 1.5  | 1.16 | 150    | 225  |  |
| W4 30-0097 | 1.65 | 1.28 | 75     | 190  |  |
| W4 30-0095 | 1.65 | 1.28 | 100    | 190  |  |
| W4 30-0096 | 1.65 | 1.28 | 150    | 190  |  |

# Premium Corning 7056 (Alkali Barium Borosilicate) Patch Glass



# Now Available in Premium Line!

Corning 7056 glass is now offered in place of the 7052 glass, last melted in 1992 and no longer available. The 7056 formula has also been discontinued by Corning (last melt in 1995) but stocks of this material are still available. The properties of the 7056 glass are similar to the 7052 as is its performance in patch experiments.

## **Specifications**

| Composition           | 68% SiO <sub>2</sub> , 18% B <sub>2</sub> O <sub>3</sub> , 9% K <sub>2</sub> O, 3% Al <sub>2</sub> O <sub>3</sub> ,<br>1% Li <sub>2</sub> O, 1% Na <sub>2</sub> O |
|-----------------------|---|
| Softening Temperature | 718°C   |
| Dielectric Constant   | 5.7   |
|                       |   |

# Premium Corning 7056 Patch Glass

| Order #    | Model     | OD<br>mm | ID<br>mm | Length<br>mm | Qty. |
|------------|-----------|----------|----------|--------------|------|
| W4 64-0813 | G75150T-4 | 1.50     | 1.10     | 100          | 225  |
| W4 64-0814 | G75165T-4 | 1.65     | 1.20     | 100          | 190  |

# Premium Corning 8161 (Potash Rubium Lead) Patch Glass



This glass pulls at a lower temperature and is easily shaped. It is recommended for low noise recordings. However, the lead content should be considered for the intended application.

## **Specifications**

| Composition           | 51% Pb0, 39% Si0 <sub>2</sub> , 6% K <sub>2</sub> 0, 2% Ba0 |
|-----------------------|---|
| Softening Temperature | 600°C   |
| Dielectric Constant   | 8.3   |

#### Premium Corning 8161 (Potash Rubium Lead) Patch Glass

| Order #    | Model     | OD<br>mm | ID<br>mm | Length<br>mm | Qty. |
|------------|-----------|----------|----------|--------------|------|
| W4 64-0815 | G86150T-4 | 1.50     | 1.10     | 100          | 225  |
| W4 64-0816 | G86165T-4 | 1.65     | 1.20     | 100          | 190  |