



AR Glass Fibers


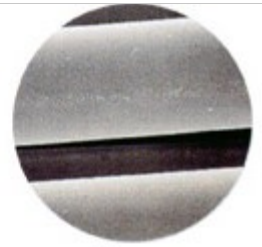

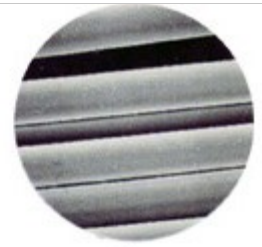
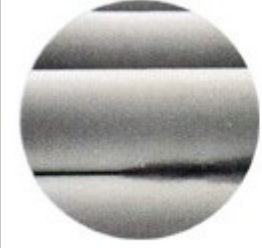

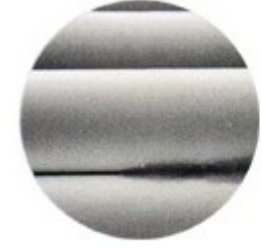
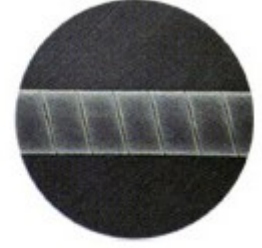
Fishstone AR Fiber contains high concentration of zirconia, and has both acid resistance and alkali resistance at high levels. It is mainly used as reinforcement for Glassfiber Reinforced Concrete (GRC) and Calcium Silicate products. It is also used as crack control material for normal concrete and cement mortar. For more than 40 years, it has been widely applied in construction and civil engineering fields. Manufactured in compliance with ASTM C1666/C 1666M, EN 15422 and under recommendations of PCI and GRCA.

Product Details

| Property | Unit | |
|--|----------------------|--|
| Thermal Expansion Coefficient | $\times 10^{-6}/K$ | 9 |
| Softening point | Celsius | 830 |
| Density | $\times 10^3 kg/m^3$ | 2.8 |
| Tensile Strength | GN/m ² | 1.5 |
| Young's modulus | GN/m ² | 74 |
| Strain to failure | % | 2 |
| Alkali-resistivity, Weight loss (saturated cement solution, 80 \square , 200 hours) | % | ARG Fiber : 0.8 (E Glass Fiber : 10.5) |
| Acid-resistivity, Weight loss (10% HCl, 80 \square , 90 hours) | % | ARG Fiber : 1.6 (E Glass Fiber : 42.9) |
| Acid-resistivity, Weight loss (10% H ₂ SO ₄ , 80 \square , 90 hours) | % | ARG Fiber : 1.2 (E Glass Fiber : 42.0) |

—Continued on next page—



| <p style="text-align: center;">Alkali-resistivity Comparison of Alkali Erosive Attack (SEM-photographs)</p> | <p style="text-align: center;">Acid-resistivity Comparison of Acid Erosive Attack (SEM-photographs)</p> |
|---|--|
| <p style="text-align: center;">ARG Fiber</p> | <p style="text-align: center;">ARG Fiber</p> |
| <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>As manufactured</p> </div> <div style="font-size: 2em;">▶</div> <div style="text-align: center;">  <p>Held at 80°C for 200 hours in saturated cement solution</p> </div> </div> <p style="text-align: center;">Well-nigh perfect</p> | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>As manufactured</p> </div> <div style="font-size: 2em;">▶</div> <div style="text-align: center;">  <p>Held at 50°C for 1 hour in 1N-HCl</p> </div> </div> <p style="text-align: center;">Well-nigh perfect</p> |
| <p style="text-align: center;">E Glass Fiber</p> | <p style="text-align: center;">E Glass Fiber</p> |
| <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>As manufactured</p> </div> <div style="font-size: 2em;">▶</div> <div style="text-align: center;">  <p>Held at 80°C for 200 hours in saturated cement solution</p> </div> </div> <p style="text-align: center;">No trace of its original form</p> | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>As manufactured</p> </div> <div style="font-size: 2em;">▶</div> <div style="text-align: center;">  <p>Held at 50°C for 1 hour in 1N-HCl</p> </div> </div> <p style="text-align: center;">Damaged at even intervals</p> |