

GENERAL PROPERTIES OF PRALON® PIPES

0 Temperature at °C

| Tests | | Symbol | Unit | Value 20° C | Remarks |
|-----------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hardness | Specific Gravity | | - | 1.38 - 1.45 | Most frequent value 1.43 Temperature variations are negligible |
| | Shore D Rockwell R | | | 70 - 90 110 - 120 | Equivalent to aluminum |
| | Water absorptive | | mg / cm ² | 1.05 | Indicate saturation value (after about 3 months) 0.15 in 7 days |
| | Flammability | | | Self extinguishing | Burns near flame but self extinguishes when the flame is removed away |
| | Weather Resistance | | | Color fading but without degradation in strength | Tensile strength slightly increases but elongation decreases |
| | Short - term tensile strength Long - term tensile strength Elongation at rupture by short time tension | σ_T max σ_T T | kg / cm ² kg / cm ² % | 530 270 100 - 150 | σ_T max. - 660 - 6.650 (same in circumferential direction) Where 0 - 20 - 60° C σ_T - 0.50 max. - 330 - 3.320 where 0 - 20 - 40° C E = (3.808 - 0.022 0) |
| | Young's modulus E (vibration method) Poisson's ratio m | E m | kg / cm ² | 3.4×10^4 2.7 | $\times 10^4$ where 0 - 10 - 50° C m - 2.768 - 0.014 0 m - 2.768 - 0.0014 0 where 0 - 80° C |
| | Bending - strength | σ_B max | kg / cm ² | 900 - 1.100 | |
| | Shearing-strength | σ_s max | kg / cm ² | 650 | |
| Change by temperature | Secondary (glass) transition point | | C | 5 - 155 | Segment is frozen and shows brittleness |
| | Primary transition (softening) point | | C | 75 - 80 | When subjected to these heats, segment causes thermal vibration and shows marked softening from this point |
| | Fabricating Temperature | | C | 110 - 140 | Temperature suitable for fabricating through deformation Minimum working through deformation |
| | Welding temperature | | C | 180 - 185 | Becomes slightly viscous and colors into brown |
| | Molding temperature | | C | 190 - 200 | Becomes paste like to collapse pipe shape Suitable for molding |
| | Decomposition point | | C | 205 - 210 | Scorching by carbonization And dehydrochloration At further higher temperatures the pipe closes |
| | Specific heat | | Kcal / kg - C | 0.20 - 0.28 | Average specific heat of 0 - 100° C Mode 0.24 |
| | Thermal Conductivity | | Kcal / m-h-C | 0.12 - 0.14 | Average specific heat of 0 - 100° C Mode 0.13 |
| | Coefficient of Linear expansion | | /°C | $6 - 7 \times 10^{-5}$ | = (5.8 + 0.0240) X 10 - 5 where 0 60° C |
| | Specific volume resistivity | | cm | $3 - 5 \times 1.015$ | High electric insulator And no magnetizing |
| | Dielectric strength | | KV / mm | 23 - 28 | |