

## HYDEX® 202 - Stock Shapes (rods, plates, tubes)

### Chemical Designation

PU (Polyurethane)

### Colour

beige

### Density

1.2 g/cm<sup>3</sup>

### Main features

- high dimensional stability
- broad chemical compatibility
- good impact strength
- good mechanical properties
- easy to machine

### Target Industries

- medical technology
- chemical technology
- fixture construction
- pharmaceutical industry
- oil and gas industry
- process engineering

| <i>Mechanical properties</i>          | <i>condition</i>    | <i>value</i>         |           | <i>test method</i> | <i>comment</i> |
|---------------------------------------|---------------------|----------------------|-----------|--------------------|----------------|
| Modulus of elasticity (tensile test)  | @ 73 °F             | 240,000              | psi       | ASTM D 638         |                |
| Tensile strength at yield             | @ 73 °F             | 9000                 | psi       | ASTM D 638         |                |
| Tensile strength at break             | @ 73 °F             | 8000                 | psi       | ASTM D 638         |                |
| Elongation at break                   | @ 73 °F             | 80                   | %         | ASTM D 638         |                |
| Flexural strength                     | @ 73 °F             | 12,000               | psi       | ASTM D 790         |                |
| Modulus of elasticity (flexural test) | @ 73 °F             | 260,000              | psi       | ASTM D 790         |                |
| Compression strength                  | @ 73 °F, 10% strain | 12,000               | psi       | ASTM D 695         |                |
| Compression strength                  | @ 73 °F, 1% strain  | 1,200                | psi       | ASTM D 695         |                |
| Compression modulus                   | @ 73 °F             | 180,000              | psi       | ASTM D 695         |                |
| Impact strength (Izod)                | @ 73 °F             | 10                   | ft-lbs/in | ASTM D 256         |                |
| Rockwell hardness                     | M Scale             | 88                   |           | ASTM D 785         |                |
| Coefficient of friction               | Dynamic (vs. steel) | 0.22                 |           | ASTM D 3702        |                |
| Coefficient of friction               | Static (vs. steel)  | 0.26                 |           | ASTM D 3702        |                |
| <i>Thermal properties</i>             | <i>condition</i>    | <i>value</i>         |           | <i>test method</i> | <i>comment</i> |
| Vicat softening point                 |                     | 292                  | °F        | ASTM D 1525        |                |
| Deflection temperature                | @264 psi            | 280                  | °F        | ASTM D 648         |                |
| Deflection temperature                | @ 66 psi            | 290                  | °F        | ASTM D 648         |                |
| Service temperature                   |                     | 280                  | °F        | -                  |                |
| Thermal expansion (CLTE)              |                     | 3.7*10 <sup>-5</sup> | in/in/°F  | ASTM D 696         |                |
| <i>Other properties</i>               | <i>condition</i>    | <i>value</i>         |           | <i>test method</i> | <i>comment</i> |
| Moisture absorption                   | @ 24 hrs, 73 °F     | 0.12                 | %         | ASTM D 570         |                |

→ Resin specification:  
Ensinger Internal Specification  
Shapes specification:  
NONE

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