

## TECAFORM® AH Acetal Copolymer - Stock Shapes

### Chemical Designation

POM-C (Polyacetal (Copolymer))

### Colour

white black

### Density

1.41 g/cm<sup>3</sup>

### Main features

- good wear properties
- low water absorption
- good chemical resistance
- easy to machine
- high dimensional stability

### Target Industries

- construction industry
- agricultural machinery
- automotive industry
- food engineering
- conveyor technology
- gear manufacturing
- heavy duty industry
- packaging and paper machinery
- process engineering

| Mechanical properties                 | condition                 | value                  |                                | test method | comment                                  |
|---------------------------------------|---------------------------|------------------------|--------------------------------|-------------|--|
| Modulus of elasticity (tensile test)  | @ 73 °F                   | 380,000                | psi                            | ASTM D 638  | (1) Data obtained from public source     |
| Tensile strength at yield             | @ 73 °F                   | 8,800                  | psi                            | ASTM D 638  | (2) Data obtained from public source     |
| Tensile strength at break             | @ 73 °F                   | 9,700                  | psi                            | ASTM D 638  | (1) (3) @5% strain                       |
| Elongation at yield                   | @ 73 °F                   | 9                      | %                              | ASTM D 638  | (2) (4) Data obtained from public source |
| Elongation at break                   | @ 73 °F                   | 25                     | %                              | ASTM D 638  |  |
| Flexural strength                     | @ 73 °F                   | 11,000                 | psi                            | ASTM D 790  |  |
| Modulus of elasticity (flexural test) | @ 73 °F                   | 360,000                | psi                            | ASTM D 790  |  |
| Compression strength                  |                           | 4,500                  | psi                            | ASTM D 695  | (3)                                      |
| Compression modulus                   | @ 73 °F                   | 334,000                | psi                            | ASTM D 695  | (4)                                      |
| Impact strength (Izod)                | @ 73 °F                   | 1.0                    | ft-lbs/in                      | -           |  |
| Rockwell hardness                     | @ 73 °F M Scale           | 86                     | %                              | ASTM D 785  |  |
| Coefficient of friction               | Dynamic<br>40 psi, 50 fpm | .21                    |                                | ASTM D 3702 |  |
| Wear rate                             | 40 psi, 50 fpm            | 65 x 10 <sup>-10</sup> | in <sup>3</sup> -min/ft-lbs-hr | ASTM D 3702 |  |
| Thermal properties                    | condition                 | value                  |                                | test method | comment                                  |
| Melting temperature                   |                           | 329                    | °F                             | -           | (1) per UL746B                           |
| Deflection temperature                | @ 66 psi                  | 316                    | °F                             | ASTM D 648  |  |
| Deflection temperature                | @264 psi                  | 230                    | °F                             | ASTM D 648  |  |
| Service temperature                   | Intermittent              | 285                    | °F                             | -           |  |
| Service temperature                   | Long Term                 | 195                    | °F                             | -           | (1)                                      |
| Thermal expansion (CLTE)              |                           | 4.7*10 <sup>-5</sup>   | in/in/°F                       | ASTM D 696  |  |
| Electrical properties                 | condition                 | value                  |                                | test method | comment                                  |
| Volume resistivity                    |                           | 1.0 x 10 <sup>14</sup> | Ω*cm                           | ASTM D 257  |  |
| Dielectric strength                   |                           | 500                    | V/mil                          | ASTM D 149  |  |
| Dissipation factor                    | @ 60 Hz, 73 °F            | .001                   | %                              | ASTM D 150  |  |
| Dielectric constant                   | @ 60 Hz, 73 °F, 50% RH    | 3.7                    | %                              | ASTM D 150  |  |
| Other properties                      | condition                 | value                  |                                | test method | comment                                  |
| Moisture absorption                   | @ 24 hrs, 73 °F           | .22                    | %                              | ASTM D 570  | (1) at 1.5mm thickness                   |
| Moisture absorption                   | @ saturation, 73 °F       | .80                    | %                              | ASTM D 570  | injection molded sample                  |
| Flammability (UL94)                   | UL 94                     | HB                     | %                              | -           | (1)                                      |

→ Resin specification:  
ASTM D6778-06 POM0211 superseding ASTM D4181-00 POM211  
Shapes specification:  
ASTM D6100-11 S-POM211

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