

## TECAFORM® AH FG blue - Stock Shapes (rods, plates, tubes)

### Chemical Designation

POM-C (Polyacetal (Copolymer))

### Colour

blue

### Density

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

### Main features

- food grade blue
- low moisture absorption
- easily machinable to tight tolerance
- good mechanical properties
- good wear properties
- porosity free

### Target Industries

- food processing
- food technology
- food engineering
- packaging and paper machinery
- conveyor technology
- engineering for beverage filling systems
- pharmaceutical industry

| Mechanical properties                 | condition                     | value                 |                                | test method | comment                              |
|---------------------------------------|-------------------------------|-----------------------|--------------------------------|-------------|--------------------------------------|
| Modulus of elasticity (tensile test)  | @ 73 °F                       | 250,000               | 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  | (3) Data obtained from public source |
| Elongation at yield (tensile test)    | @ 73 °F                       | 9                     | %                              | ASTM D 638  | (4) Injection molded data            |
| Elongation at break (tensile test)    | @ 73 °F                       | 25                    | %                              | ASTM D 638  | (5) Injection molded data            |
| Flexural strength                     | @ 73 °F                       | 12,000                | psi                            | ASTM D 790  |                                      |
| Modulus of elasticity (flexural test) | @ 73 °F                       | 400,000               | psi                            | ASTM D 790  |                                      |
| Compression strength                  | @ 73 °F, 1% strain            | 1,200                 | psi                            | ASTM D 695  |                                      |
| Compression strength                  | @ 73 °F, 10% strain           | 11,500                | psi                            | ASTM D 695  | (3)                                  |
| Impact strength (Izod)                | @ 73 °F                       | 1.1                   | ft-lbs/in                      | ASTM D 256  |                                      |
| Rockwell hardness                     | M Scale                       | 86                    |                                | ASTM D 785  |                                      |
| Coefficient of friction               | Dynamic, 40 psi, 50 fpm       | 0.21                  | %                              | ASTM D 3702 | (4)                                  |
| Wear rate                             | Against Steel, 40 psi, 50 fpm | 65*10 <sup>-10</sup>  | in <sup>3</sup> -min/ft-lbs-hr | ASTM D 3702 | (5)                                  |
| Thermal properties                    | condition                     | value                 |                                | test method | comment                              |
| Melting temperature                   |                               | 329                   | °F                             | -           | (1)                                  |
| Deflection temperature                | @ 66 psi                      | 316                   | °F                             | ASTM D 648  | (2)                                  |
| Deflection temperature                | @ 264 psi                     | 230                   | °F                             | ASTM D 648  | (3)                                  |
| Service temperature                   | Intermittent                  | 285                   | °F                             | -           | (4)                                  |
| Service temperature                   | Long Term                     | 195                   | °F                             | -           | (5)                                  |
| Thermal expansion (CLTE)              |                               | 4.7*10 <sup>-5</sup>  | in/in/°F                       | ASTM D 696  | (6)                                  |
| Electrical properties                 | condition                     | value                 |                                | test method | comment                              |
| volume resistance                     |                               | 1.0*10 <sup>-14</sup> | Ω/square                       | ASTM D 257  | (1)                                  |
| Dielectric strength                   |                               | 500                   | V/mil                          | ASTM D 149  | (2)                                  |
| Dissipation factor                    | @ 60HZ, 73°F                  | 0.001                 |                                | -           | (3)                                  |
| Dielectric loss factor                | @ 60 Hz, 70°                  | 0.001                 |                                | ASTM D 150  | (4)                                  |
| Dielectric constant                   | @ 60HZ, 73°F, 50% RH          | 3.7                   |                                | ASTM D 150  | (5)                                  |
| Other properties                      | condition                     | value                 |                                | test method | comment                              |
| Moisture absorption                   | @ 24 hrs, 73 °F               | 0.22                  | %                              | ASTM D 570  |                                      |
| Moisture absorption                   | @ saturation, 73 °F           | 0.8                   | %                              | ASTM D 570  |                                      |

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

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