

# TAROMID A 280 G5 X0

Polyamide 66  
Taro Plast S.p.A.

Message:

Polyamide 66 medium viscosity, 25% glass fiber reinforced, UL94 V0 self extinguishing, very good flame proofing also at low thickness, good processing and good mechanical properties.  
UL94 V0 approved all colors at 0,88 mm. UL746B approved.  
Available: different colors, heat stabilized (H), release agent (W), and without PBDE/PBDF.

| General Information         |                                  |                   |                      |
|-----------------------------|----------------------------------|-------------------|----------------------|
| UL YellowCard               | E143048-223244                   |                   |                      |
| Filler / Reinforcement      | Glass Fiber,25% Filler by Weight |                   |                      |
| Additive                    | Heat Stabilizer                  |                   |                      |
|                             | Mold Release                     |                   |                      |
| Features                    | Flame Retardant                  |                   |                      |
|                             | Good Mold Release                |                   |                      |
|                             | Good Processability              |                   |                      |
|                             | Heat Stabilized                  |                   |                      |
|                             | Medium Viscosity                 |                   |                      |
|                             | Self Extinguishing               |                   |                      |
| Appearance                  | Colors Available                 |                   |                      |
| Forms                       | Pellets                          |                   |                      |
| Processing Method           | Injection Molding                |                   |                      |
| Physical                    | Nominal Value                    | Unit              | Test Method          |
| Specific Gravity            | 1.46 to 1.48                     | g/cm <sup>3</sup> | ASTM D792, ISO 1183  |
| Molding Shrinkage           |                                  |                   | ASTM D955            |
| Flow                        | 0.35 to 0.60                     | %                 |                      |
| Across Flow                 | 0.50 to 0.90                     | %                 |                      |
| Water Absorption            |                                  |                   |                      |
| 23°C, 24 hr                 | 0.70                             | %                 | ASTM D570, ISO 62    |
| Saturation                  | 4.5                              | %                 | ASTM D570            |
| Saturation, 23°C            | 4.5                              | %                 | ISO 62               |
| Granule Humidity            | < 0.15                           | %                 | Internal Method      |
| Hardness                    | Nominal Value                    | Unit              | Test Method          |
| Rockwell Hardness (R-Scale) | 115                              |                   | ASTM D785            |
| Mechanical                  | Nominal Value                    | Unit              | Test Method          |
| Tensile Modulus             | 8500                             | MPa               | ASTM D638, ISO 527-2 |
| Tensile Strength (Break)    | 135                              | MPa               | ASTM D638, ISO 527-2 |
| Tensile Elongation (Break)  | 2.5                              | %                 | ASTM D638, ISO 527-2 |

|                                                         |               |                   |                                      |
|---------------------------------------------------------|---------------|-------------------|--------------------------------------|
| Flexural Modulus                                        | 7800          | MPa               | ASTM D790, ISO 178                   |
| Flexural Stress                                         |               |                   |                                      |
| --                                                      | 185           | MPa               | ISO 178                              |
| Break                                                   | 185           | MPa               | ASTM D790                            |
| Impact                                                  | Nominal Value | Unit              | Test Method                          |
| Charpy Notched Impact Strength <sup>1</sup> (23°C)      | 5.8           | kJ/m <sup>2</sup> | ASTM D256, ISO 179                   |
| Charpy Unnotched Impact Strength <sup>2</sup> (23°C)    | 30            | kJ/m <sup>2</sup> | ASTM D256, ISO 179                   |
| Notched Izod Impact (23°C, 3.20 mm)                     | 60            | J/m               | ISO 180, ASTM D256                   |
| Thermal                                                 | Nominal Value | Unit              | Test Method                          |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 230           | °C                | ASTM D648, ISO 75-2/A                |
| Continuous Use Temperature                              |               |                   |                                      |
| --                                                      | 65.0          | °C                | UL 746B                              |
| -- <sup>3</sup>                                         | 90.0          | °C                | IEC 60216                            |
| -- <sup>4</sup>                                         | 120           | °C                | IEC 60216                            |
| -- <sup>5</sup>                                         | 130           | °C                | IEC 60216                            |
| -- <sup>6</sup>                                         | 160           | °C                | IEC 60216                            |
| Vicat Softening Temperature                             | 240           | °C                | ISO 306/B50, ASTM D1525 <sup>7</sup> |
| Ball Pressure Test (165°C)                              | Pass          |                   | VDE 0470                             |
| Melting Temperature                                     | 250 to 256    | °C                | ASTM D211, ISO 121                   |
| CLTE - Flow (-30 to 30°C)                               | 3.0E-5        | cm/cm/°C          | ASTM D696                            |
| Electrical                                              | Nominal Value | Unit              | Test Method                          |
| Volume Resistivity                                      | 1.0E+15       | ohms · cm         | ASTM D257                            |
| Dielectric Strength (2.00 mm)                           | 24            | kV/mm             | ASTM D149                            |
| Comparative Tracking Index (Solution A)                 | 300           | V                 | IEC 60112                            |
| Flammability                                            | Nominal Value | Unit              | Test Method                          |
| Flame Rating                                            |               |                   | UL 94                                |
| 0.880 mm                                                | V-0           |                   |                                      |
| 1.60 mm                                                 | V-0           |                   |                                      |
| 3.20 mm                                                 | V-0           |                   |                                      |
| Glow Wire Ignition Temperature (2.00 mm)                | 960           | °C                | IEC 60695-2-13                       |
| Oxygen Index                                            | 30            | %                 | ASTM D2863                           |
| Injection                                               | Nominal Value | Unit              |                                      |
| Drying Temperature                                      |               |                   |                                      |
| --                                                      | 80.0 to 90.0  | °C                |                                      |
| Pre-heater                                              | 80.0 to 100   | °C                |                                      |
| Drying Time                                             |               |                   |                                      |
| --                                                      | 1.0           | hr                |                                      |
| Pre-heater                                              | 3.0           | hr                |                                      |
| Processing (Melt) Temp                                  | 260 to 270    | °C                |                                      |
| Mold Temperature                                        | 70.0 to 90.0  | °C                |                                      |

|                |                                   |
|----------------|-----------------------------------|
| Injection Rate | Moderate                          |
| NOTE           |                                   |
| 1.             | 6x4x50 mm                         |
| 2.             | 6x4x50 mm                         |
| 3.             | 20000 hrs                         |
| 4.             | Heat Stablized, 20000 hrs         |
| 5.             | Short Term                        |
| 6.             | Heat Stablized, Short Term        |
| 7.             | Rate A (50°C/h), Loading 2 (50 N) |

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