

## POLIMAXX AN620

IRPC Public Company Limited - *Acrylonitrile Butadiene Styrene*

### General Information

#### Product Description

AN620 is a Flame Retardant ABS grade that provides the highest level of flame retardant property according to the V0, 5VA, and UL-94 standards. It is specially designed for injection molding appliance & electronic parts.

Industry:

- Appliance & Electronic Parts
- Wiring & Electronic Devices

Product Feature:

- Flame Retardant
- Good Processability

Regulation Compliance:

- RoHS Directive; 2011/65/EU
- UL Yellow Card: E132283

#### General

|                   |                      |                                      |                             |
|-------------------|----------------------|--------------------------------------|-----------------------------|
| Material Status   | • Commercial: Active |                                      |                             |
| Availability      | • Asia Pacific       | • Europe                             | • North America             |
| Additive          | • Flame Retardant    |                                      |                             |
| Features          | • Flame Retardant    | • Good Processability                |                             |
| Uses              | • Appliances         | • Electrical/Electronic Applications | • Wire & Cable Applications |
| Agency Ratings    | • EU 2011/65/EC      |                                      |                             |
| RoHS Compliance   | • RoHS Compliant     |                                      |                             |
| Processing Method | • Injection Molding  |                                      |                             |

### Properties <sup>1</sup>

| Physical                                                          | Nominal Value | Unit     | Test Method     |
|-------------------------------------------------------------------|---------------|----------|-----------------|
| Density / Specific Gravity <sup>2</sup>                           | 1.05          |          | ASTM D792       |
| Melt Mass-Flow Rate (MFR)                                         |               |          | ASTM D1238      |
| 200°C/10.0 kg                                                     | 2.2           | g/10 min |                 |
| 200°C/5.0 kg                                                      | 2.2           | g/10 min |                 |
| Molding Shrinkage                                                 | 0.40 to 0.60  | %        | Internal Method |
| Mechanical                                                        | Nominal Value | Unit     | Test Method     |
| Tensile Strength <sup>3</sup> (Yield, 0.126 in)                   | 6830          | psi      | ASTM D638       |
| Tensile Elongation <sup>3</sup> (Break, 0.126 in)                 | 11            | %        | ASTM D638       |
| Flexural Modulus <sup>4</sup> (0.252 in)                          | 356000        | psi      | ASTM D790       |
| Flexural Strength <sup>4</sup> (Yield, 0.252 in)                  | 9530          | psi      | ASTM D790       |
| Impact                                                            | Nominal Value | Unit     | Test Method     |
| Notched Izod Impact (73°F, 0.252 in)                              | 3.1           | ft-lb/in | ASTM D256       |
| Hardness                                                          | Nominal Value | Unit     | Test Method     |
| Rockwell Hardness (R-Scale, 73°F, 0.252 in)                       | 110           |          | ASTM D785       |
| Thermal                                                           | Nominal Value | Unit     | Test Method     |
| Deflection Temperature Under Load (264 psi, Unannealed, 0.252 in) | 167           | °F       | ASTM D648       |
| Flammability                                                      | Nominal Value | Unit     | Test Method     |
| Flame Rating                                                      |               |          | UL 94           |
| 0.06 in                                                           | V-0           |          |                 |
| 0.10 in                                                           | 5VA           |          |                 |

### Processing Information



| Injection          | Nominal Value | Unit |
|--------------------|---------------|------|
| Drying Temperature | 176 to 185    | °F   |
| Drying Time        | 2.0 to 4.0    | hr   |
| Rear Temperature   | 374 to 464    | °F   |
| Middle Temperature | 374 to 464    | °F   |
| Front Temperature  | 374 to 464    | °F   |
| Mold Temperature   | 122 to 176    | °F   |
| Injection Rate     | Slow-Moderate |      |

Notes

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 23°C
- <sup>3</sup> 0.20 in/min
- <sup>4</sup> 0.098 in/min

