

## XYRON™ AF700

Asahi Kasei Corporation - Polyamide + PPE

### General Information

| Product Description                      |                     |              |                |
|------------------------------------------|---------------------|--------------|----------------|
| Modified PPE                             |                     |              |                |
| PA/PPE alloy                             |                     |              |                |
| Flame retardant V-0                      |                     |              |                |
| Easy FLOW                                |                     |              |                |
| General                                  |                     |              |                |
| Features AKEP website                    | • Flame Retardant   | • Flow, High | • Halogen Free |
| Processing Method                        | • Injection Molding |              |                |
| Part Marking Code (ISO11469) (ISO 11469) | • >PA66+PPE-FR(40)< |              |                |

### ASTM & ISO Properties <sup>1</sup>

| Physical                                                  | Nominal Value | Unit              | Test Method     |
|-----------------------------------------------------------|---------------|-------------------|-----------------|
| Density                                                   | 1.12          | g/cm <sup>3</sup> | ISO 1183        |
| Molding Shrinkage <sup>2</sup> (3.00 mm)                  | 1.5 to 1.6    | %                 | Internal Method |
| Mechanical                                                | Nominal Value | Unit              | Test Method     |
| Tensile Stress (Yield, 23°C)                              | 54.0          | MPa               | ISO 527         |
| Tensile Strain (Break, 23°C)                              | 44            | %                 | ISO 527         |
| Flexural Modulus (23°C)                                   | 2700          | MPa               | ISO 178         |
| Flexural Stress (23°C)                                    | 92.0          | MPa               | ISO 178         |
| Impact                                                    | Nominal Value | Unit              | Test Method     |
| Charpy Notched Impact Strength <sup>3</sup> (23°C)        | 6.0           | kJ/m <sup>2</sup> | ISO 179         |
| Thermal                                                   | Nominal Value | Unit              | Test Method     |
| Deflection Temperature Under Load<br>0.45 MPa, Unannealed | 193           | °C                | ISO 75-2/B      |
| CLTE                                                      |               |                   | ISO 11359-2     |
| Flow : -30 to 65°C                                        | 8.3E-5        | cm/cm/°C          |                 |
| Transverse : -30 to 65°C                                  | 8.8E-5        | cm/cm/°C          |                 |



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| Flammability          | Nominal Value | Unit | Test Method |
|-----------------------|---------------|------|-------------|
| Flame Rating (1.5 mm) | V-0           |      | UL 94       |

| Processing Information             |               |      |  |
|------------------------------------|---------------|------|--|
| Injection                          | Nominal Value | Unit |  |
| Drying Temperature - Hot Air Dryer | 110 to 130    | °C   |  |
| Drying Time - Hot Air Dryer        | 2.0 to 4.0    | hr   |  |
| Processing (Melt) Temp             | 270 to 290    | °C   |  |
| Mold Temperature                   | 60 to 120     | °C   |  |

**Injection Notes**

Recommended processing (melt) temperature of XYRON™ Polyamide + PPE is 280-300°C. Lower temperatures may lead to local degradation in properties due to non-uniform plasticization, while higher temperatures tend to cause silver streaking, other appearance problems and decomposition.

**Notes**

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 120x80x3 mm
- <sup>3</sup> 4 mm

