

XYRON®**POLYPHENYLENE ETHER**
ENGINEERING THERMOPLASTIC

XYRON® IS A REGISTERED TRADEMARK OF ASAHI KASEI CORPORATION (JAPAN)

XYRON® G703H

XYRON® G703H is a 30% glass fibre filled moulding grade of modified PPE (a Polyphenylene Ether and High Impact Polystyrene blend) and offers an exceptional balance of product rigidity and strength, creep resistance, electrical insulation, low moisture absorption, high heat resistance, high dimensional stability, mouldability and low product density. Typical applications include business machine and telephone chassis units, industrial water pumping connectors and pressure vessel housings and high tolerance electrical connector assemblies.

<u>CONDITIONS</u>	<u>UNITS</u>	<u>TYPICAL VALUES</u>	<u>TESTING METHODS</u>
1. Mechanical Properties			
Notched Izod Impact Strength	J/m	98	ASTM D256
Tensile Strength	MPa	120	ASTM D638
Elongation to Fail	%	3	ASTM D638
Flexural Strength	MPa	150	ASTM D790
Flexural Modulus	MPa	6500	ASTM D790
2. Thermal Properties			
Heat Deflection Temperature	°C	138	ASTM D648
	°C	135	ASTM D648
Coefficient of Linear Thermal Expansion	cm/cm/°C	2.8 exp-5	ASTM D696
3. Electrical Properties			
Volume Resistivity	Ohm.cm	>10exp16	ASTM D257
Dielectric Strength	MV/m	44	ASTM D149
Arc Resistance	Tungsten Electrode	s	ASTM D495
4. Physical Properties			
Specific Gravity	-	1.30	ASTM D792
Rockwell Hardness	R	125	ASTM D785
UL Flammability	0.8 mm	Rating	HB
Water Absorption	24 hours	%	0.06
Reinforcement Level		%	30
Mould Shrinkage	3.0 x Ø100 mm disc	%	0.2 - 0.3

All test results were obtained using natural material.

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Material Safety Data Sheet (MSDS): Code Xyron

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TYPICAL PROCESSING CONDITIONS

XYRON® G703H

The following typical guidelines are offered as initial processing conditions for XYRON® G703H. In practice, processing parameters may need to be varied to give commercially acceptable performance in conjunction with optimum physical properties. For specific technical advice on part design or processing conditions, contact the Marplex Technical Service Department.

Temperature of pellet bed in dehumidifying drier		105 - 110 °C
Minimum drying time at desired pellet bed temp		3 - 5 hours
Mould temperature		60 - 100 °C
Nozzle temperatures		Do not exceed stock temperature
Stock temperature		260 - 290 °C
Cylinder temperatures	Rear	245 - 265 °C
	Middle	255 - 275 °C
	Front	265 - 285 °C
Fill speed		Medium
Screw speed		40 - 60 rpm
Screw back pressure		Minimum
Injection pressure		60 - 140 MPa
Clamp pressure		4 - 8 kN/cm ²

Comment(s):

- 1 Cleanliness of the dryer, machine hopper and machine screw/barrel/nozzle assembly are essential for processing Xyron® Modified PPE and producing contamination free moulded components.
- 2 Xyron® Modified PPE is not compatible with other polymers.
- 3 It is suggested that the pre-drying, die head, roller and material temperatures are manually confirmed using a hand held temperature measuring device.
- 4 Minimise screw back speed during recharge to limit glass fibre breakage.

Conversions:

1 MPa	= 145 psi
	= 10.2 kg/cm ²
	= 10 bar
	°C = 5(°F-32)/9
	1 kN/cm ² = 0.65 ton/in ²