Xyron molding conditions

| Grades and Properties | Application Examples | Molding Conditions | Important Precautions | MSDS |

		Non Reinforced					Non Reinforced/Flame Retardant				
Grades		200H	300H	400H	500H	600H	100V 100Z 140V 140Z	220V 220Z 240V 240Z 240W	300V 300Z 340V 340Z 340W	500V 500Z 540V 540Z	640V 640Z 740V
Predrying Conditions	Temp. (°C)	80-90	90-100	90-100	90-100	90-100	70-80	80-90	90-100	90-100	90-100
	Time (hr.)	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4
Molding Conditions	Resin Temp. (°C)	220-270	230-280	220-290	240-290	250-310	220-270	220-270	240-270	240-290	240-300
	Mold Temp. (°C)	50-70	50-80	60-90	70-100	70-100	40-70	50-80	50-80	50-80	60-100

		Reinforced	Reinforced/ Flame Retardant			High Heat Resistant		Non Reinforced/ Automotive			Sheet
Grades		G701H G702H G703H	G701V G702V G703V	X332V X332Z X333V X333Z	X532V X532Z X533V X533Z X534Z	X9108 X9102	SZ800	X0715 X0718 X5516	X0700	X0722	X9653
Predrying Conditions	Temp. (°C)	90-100	90-100	80-100	90-100	90-100	90-100	90-100	90-100	90-100	90-100
	Time (hr.)	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4
Molding Conditions	Resin Temp. (°C)	250-300	250-300	270-310	280-320	290-320	280-320	240-290	220-250	250-300	260-290
	Mold Temp. (°C)	80-120	80-120	60-100	70-100	80-120	80-120	50-80	50-80	70-100	-

		Good Appearance/ Low Warp			High Flow Chassis		Precision Chassis		Electro Conductive	High Stiffness/ Acoustic Damping	
Grades		X251V X251Z	X351V X351Z X352V	X551V X552V X552H	X1561	X1762 X1763 X1774 X1784 L542V L543V L544V L564V	X1519 X1511 X1711 X304H X404H	X603V	X8400 X8600	VT302 VM303	VM502
Predrying Conditions	Temp. (°C)	90-100	90-100	100-110	100	100	100	100	90-100	90-100	90-100
	Time (hr.)	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4
Molding Conditions	Resin Temp. (°C)	240-280	240-280	250-300	240-280	250-300	270-310	270-310	240-300	230-280	250-300
	Mold Temp. (°C)	50-80	50-80	60-100	60-90	70-90	80-100	80-120	60-90	50-80	50-100

Please contact us for molding conditions of PPE/PA grades.

Molding

Pre-drying
Modified PPE has the lowest moisture absorption of any engineering plastic and displays excellent hydrolysis resistance. To help ensure against surface appearance faults such as silver streaks, it is nonetheless good practice to predry the material. For applications where surface appearance is critical, always be sure to predry the material. When using a PPE/PA grade, predrying is especially important due to the high moisture absorption properties of PA.

Predrying should be done at the proper temperature range specified for each grade. A closed loop dehumidifying/drying hopper system is the most efficient equipment for predrying Xyron. When using hot-air circulating ovens, Xyron pellets will be efficiently predried when spread out in trays at a uniform depth of 20 to 30 mm.

Take care to ensure that Xyron is not predried for longer than 8 hours. Excessive predrying may result in degradation of physical properties and color changes.

Regrind
Properly molded Xyron (sprues, runners, molded articles, etc.) may be reground, dried, and remolded without adverse effects. It is essential that material to be reground be free from oil, grease, dirt, and foreign substances, and shows no signs of degradation. Regrind levels up to 20% can be used successfully, but it is not advisable to use reground material for applications where surface appearances are critical.

Purging
High viscosity GPPS and Asaclean SA™ (available from Asahi Kasei Chemicals Corporation and distributors) are recommended purging materials for all Xyron grades. Purging should be performed at temperature ranges appropriate for each grade.

Downtime
In order to prevent polymer degradation when molding operation is stopped or interrupted, the following measures are recommended.

- Up to 30 minutes:
  Maintain cylinder temperature. Purge barrel using same material prior to the re-start of molding operation.
- From 30 minutes to 12 hours:
  Decrease cylinder temperature to 200–220°C. Purge barrel using high viscosity GPPS. Upon commencement of molding operation, Purge barrel using material for molding after increasing cylinder temperature to the required level.
- For downtime longer than 12 hours:
  Purge barrel with high viscosity GPPS, and shut down machine.

Mold release
Generally, mold release agents are not required for molding Xyron resins. In cases where mold release agents are needed due to the complex shape of the mold, minimal use is recommended. Silicone-based mold release agents such as Pelicoat B™ (manufactured and sold by Chyukyo Kasei Kogyo Ltd., Japan) are recommended, as the chemical ingredients do not react with Xyron.

NOTE:
The information provided here is accurate to the best of our knowledge, based on all information and data available at this time, and is subject to change without notice. It is provided with no guarantee or assumption of liability whatsoever. It applies only to the normal handling and use of Xyron as a molding material. Any other use or application would necessitate additional, special safety precautions, and is not recommended.

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