AsahiKASEI

Sheet #TS-27

Asahi Kasei Corporation
Performance Polymers SBU
Thermoplastic Elastomer Division
Elastomer Sales Dept. 1

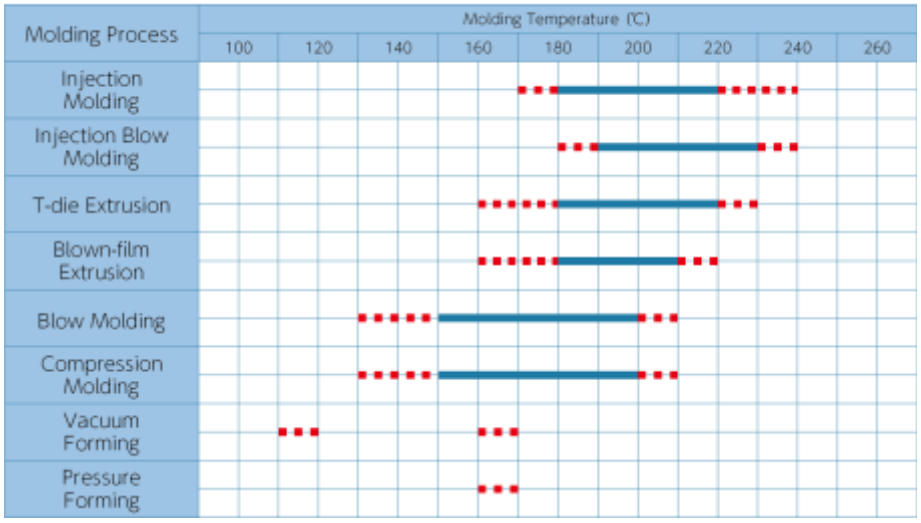
Tech Sheet

Basic Asaflex™ molding conditions

Asaflex™ can be used in any of the molding processes generally employed for thermoplastic polymers.

Molding temperatures of 250℃ or higher will cause rapid crosslinking among the rubber (polybutadiene) constituents of the Asaflex™ polymer, resulting in loss of transparency and degradation of other properties. In operations with molding temperature near 230℃ long residence times may also lead to degraded characteristics, and particular care is necessary to avoid product defects.

ASAFLEX™ molding temperatures* - optimal (▬) and practicable (▪▪▪▪) ranges



Illustrative examples of Asaflex™ molding conditions

These examples provide a basic reference, but the conditions appropriate to a specific operation will depend on the Asaflex™ grade, co-constituents, process equipment and dies, product form and size, and other essential factors, and should be determined and confirmed in preliminary trials.

Illustration 1 — Asaflex™ injection molding	Conditions
Molding	Flat plate, 130 x 110 x 3 mm
Gate	Tab gate, 3 x 3 mm
Molding machine	Tab gate, 3 x 3 mm
Cylinder temp.	180～200℃
Nozzle temp.	200℃
Injection pressure	67MPa
Mold temp.	50℃
Back pressure	6MPa
Cushion	3～5mm
Injection time	10 sec
Cooling time	20 sec

Illustration 2 - Asaflex™ T-die sheet extrusion		Conditions
Molding		Sheet, 0.8 mm thick x 700 mm long
Extruder		90 mm diameter
Screw		Full-flight screw, L/D = 28
Die		Coat hanger type
Cylinder temp.	**C1**	180℃
	C2	190℃
	C3	195℃
	C4	200℃
	C5	210℃
Die temperature (D1–D5)		210℃
Polishing roller		60～80℃

Illustration 3 — Blow molding		Conditions
Molding		1200ccbottle
Extruder		50mmϕ
Die head No.		2
Mold		2-cavity
Cylinder temp.	**C1**	150℃
	C2	160℃
	C3	175℃
Adaptor temperature		175℃
Die temperature		170℃
Screw speed		60rpm
Extrusion output		30kg／Hr
Molding cooling		Water-cooled
Blow pressure		6kg／cm2

All data and values based on specific test methods, and given for basic reference only and not as any warranty or specification. Applications shown for illustration only, and represent no warranty of suitability or non-infringement of intellectual property rights. The product of Asahi Kasei shown herein must not be used for any medical device or drug, except with its express written consent.

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