

ABS/PBT

Hi Impact HI 440 & High Heat Resistance HR430

Property	Test method (ASTM)	Test condition	Unit	Typical Value HI 440	Typical Value HR 430
Izod impact	D-256	6.4 mm , notched	Kj/m ²	45	17
Melt flow index	D-1238	220°C , 10 kg	gr/10 min	47	35
Rock well hardness	D-785		R-scale	113	107
HDT	D-648	1.82 m pa	°C	125	98
Vicat softening Temp	D-1525	5kg/50°C	°C	135	110
Tensile strength	D-638	23°C , 50 mm/min	Kg/cm ²	550	480
Tensile elongation	D-638	23°C , 50 mm/min	%	100	50
Flexural strength	D-790	23°C , 2.8 mm/min	Kg/cm ²	535	680
Flexural Modulus	D-790	23°C , 2.8 mm/min	Kg/cm ²	22500	20000
Specific Gravity	D-792	23°C	..	1.18	1.08
Molding Shrinkage	D-955	...	%	0.5-0.9	0.5-0.8
Flammability	UL94	1/8 inch (3.2mm)	...	HB	HB

Moisture Levels in Pellets and Drying Techniques

The moisture level of the pellets used has to be kept below a specific limit if the moldings are to have satisfactory Surface and good properties. The moisture level in ASB/PBT pellets should not exceed 0.1%. Drying at 85 to 95 for 4 hours is needed to achieve this using material. Depending on storage conditions. Ambient conditions and time elapsed, the moisture content within the packs can rise. Particularly in winter, if the packed pellets are moved from a cold storage area to a warmer processing area and then opened immediately, condensation onto the pellets can occur when the air around them cools. Condensation can be avoided if the closed pack is stored for some time in the processing area or brought to room temperature in an intermediate silo.

Injection Molding

The heat needed to melt the pellets is supplied by external heating of the plastifying cylinder and also by the friction from rotation of the screw. The temperature profile options shown in table 1 are available when setting heater band temperatures.

Rear Temp (°C)	Center Temp (°C)	Center Temp (°C)	Front Temp (°C)	Nozzle Temp (°C)	Melt Temp (°C)
210-230	220-240	230-250	230-250	230-260	250
Mold Temp (°C)	Filing Speed	Back pressure (mpa)	Screw speed (rpm)	Shot to barrel (%)	
60-80	Slow-Med	0.3-1.0	40-60	40-80	