

## Product Data Sheet

KUMHO POLYCHEM

# Innoprene™ 1451B

Thermoplastic Rubber

### Product Description

Innoprene™ 1451B is thermoplastic rubber which incorporates the elasticity of thermoset rubber with the plasticity of thermoplastics. This grade can be formed by extrusion, injection molding for various applications such as tubing, gaskets, bumpers, seals and other articles.

### General

Applications	Automotive – Air Induction System Gaskets, Ducts Automotive – Plugs, Bumpers Consumer Applications – Gaskets, Seals Tubing		
Automotive Spec.	GM GMW 15813 Type 3		
Color	Black		
Form(s)	Pellets		
Processing	Extrusion	Injection Molding	
Revision Date	2021-04-01		

Physical Properties	Unit	Typical Value	Test Method
Specific Gravity	–	0.95	ISO 1183
Hardness (Shore A, 15 sec.)	–	48	ISO 868
Tensile Strength	Kgf/cm <sup>2</sup> , Mpa	35 / 3.4	ISO 37
Elongation	%	348	ISO 37
Modulus at 100%	Kgf/cm <sup>2</sup> , Mpa	12.5 / 1.2	ISO 37
Tear Strength	kN/m	18	ISO 34-1
Compression set (125°C, 70 hrs)	%	30	ISO 815

Thermal Property	Unit	Typical Value	Test Method
Brittleness Temperature	°C	-60	ISO 812

Aging Properties (150°C, 168 hrs)	Unit	Typical Value	Test Method
Change in Shore Hardness	–	-2	ISO 188
Change in Tensile Strength	%	+8	ISO 188
Change in Elongation	%	-4	ISO 188

## Injection Molding Conditions

Drying Temperature	85 °c
Drying Time	3.0 hrs
Rear Temperature	170 °c
Middle Temperature	175 ~ 190 °c
Front Temperature	195 °c
Nozzle Temperature	200 °c
Processing(Melt) Temperature	190 ~ 195 °c
Mold Temperature	10 ~ 60 °c
Cooling Time	20 ~ 30 sec / 100 ~175 g
Injection Rate	Fast

## Extrusion Conditions

Drying Temperature	85 °c
Drying Time	3.0 hrs
Feed Temperature	170 °c
Zone 1 ~ Zone 3 Temperature	175 ~ 190 °c
Head Temperature	195 °c
Die Temperature	200 °c
Processing(Melt) Temperature	190 ~ 195 °c
Screen Pack	20 ~ 60 mesh
Back Pressure	5.0 to 20.0 Mpa

The property values shown are measured on injection molded specimens. They are based on a limited number of tests. Therefore, should not be interpreted as product specifications. These values may shift slightly as additional data are accumulated.

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