# Titanvene™ HD5120GB-B

### High Density Polyethylene

#### PT. TITAN Petrokimia Nusantara

#### Message:

Titanvene™ HD5120GB-B is a high density polyethylene copolymer with a narrow molecular weight distribution, which has been specially developed for packaging carbonated beverages and for other applications where very high environmental stress cracking resistance (ESCR) is required. Titanvene™ HD5120GB-B has very good organoleptic properties, which does not significantly transfer taste or odour to the packaged product. Titanvene™ HD5120GB-B contains high slip agent to reduce the forces required to seal and open the cap. Titanvene™ HD5120GB-B is characterised by excellent impact strength and creep resistance.

#### **Applications**

Titanvene™ HD5120GB-B is specialised for bottle caps for carbonated beverages or other closures where very high ESCR and reduced sealing and opening forces are required.

**Recommended Processing Conditions** 

Titanvene™ HD5120GB-B can be easily processed on normal polyethylene injection moulding machines at temperatures in the range of 200°C to 240°C. Food Contact Compliance

Titanvene™ HD5120GB-B can be used in food contact applications. Please contact your nearest PT. TITAN Petrokimia Nusantara representative for more detail of food contact compliance statements for the specific grade.

General Information				
Features	Copolymer			
	Food Contact Acceptable			
	Good Creep Resistance			
	Good Organoleptic Properties			
	High ESCR (Stress Crack Resist.)			
	High Impact Resistance			
	Low Odor Transfer			
	Low Taste Transfer			
	Narrow Molecular Weight Distribution			
Uses	Caps			
	Closures			
RoHS Compliance	RoHS Compliant			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Density	0.954	g/cm³	ISO 1183/D	
Melt Mass-Flow Rate (MFR) (190°C/2.16				
kg)	2.5	g/10 min	ISO 1133	
Environmental Stress-Cracking Resistance (10% Igepal CO-630, F50)	40.0	hr	ASTM D1693B	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Stress <sup>1</sup> (Yield)	26.0	MPa	ISO 527-2/2	
Tensile Strain <sup>2</sup> (Break)	1800	%	ISO 527-2/2	
Flexural Modulus	1300	MPa	ISO 178	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	10	kJ/m²	ISO 179/1A
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	124	°C	ISO 306
Melting Temperature (DSC) <sup>3</sup>	131	°C	ISO 3146
Injection	Nominal Value	Unit	
Processing (Melt) Temp	200 to 240	°C	
NOTE			
1.	Speed C		
2.	Speed C		
3.	Method C		

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### Recommended distributors for this material

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