

# **Soarnol™ DC3205HB**

## ETHYLENE VINYL ALCOHOL COPOLYMER

Modified Soarnol™ for the hot-water under floor heating pipe

### Application

Soarnol™ DC3205HB is a special grade of Soarnol™, its ethylene content is 32 mol% with an intermediate MFR (melt flow rate). Soarnol™ DC3205HB has a better thermal durability, therefore it can be used as the oxygen barrier component of the under floor heating pipe.

### General Properties

Properties	Unit	Value
Ethylene Content	mol%	32
MFR <sup>1)</sup> (210 degree C, 2160g)	g/10min	5.5
Volatile Matter	%	< 0.3
Melting Point <sup>2)</sup>	degree C	183
Crystallization Temp. <sup>2)</sup>	degree C	160
Glass Transition Temp. <sup>2)</sup>	degree C	61
Density <sup>3)</sup> (23 degree C)	g/cm <sup>3</sup>	1.19
Oxygen Permeability <sup>4)</sup> (20 degree C x 65%RH)	cc.20μm / m <sup>2</sup> .day.atm cc.mil / 100inch <sup>2</sup> .day.atm	0.3 0.015

1): Measured with Melt Indexer

2): Measured with DSC, both heating and cooling speeds of 10 degree C/min

3): Measured with Micromeritics Gas Pycnometer

4): Measured with OXTRAN 2/20 (MOCON)

\*The above figures are representative values and are not guaranteed.

Melt Viscosity

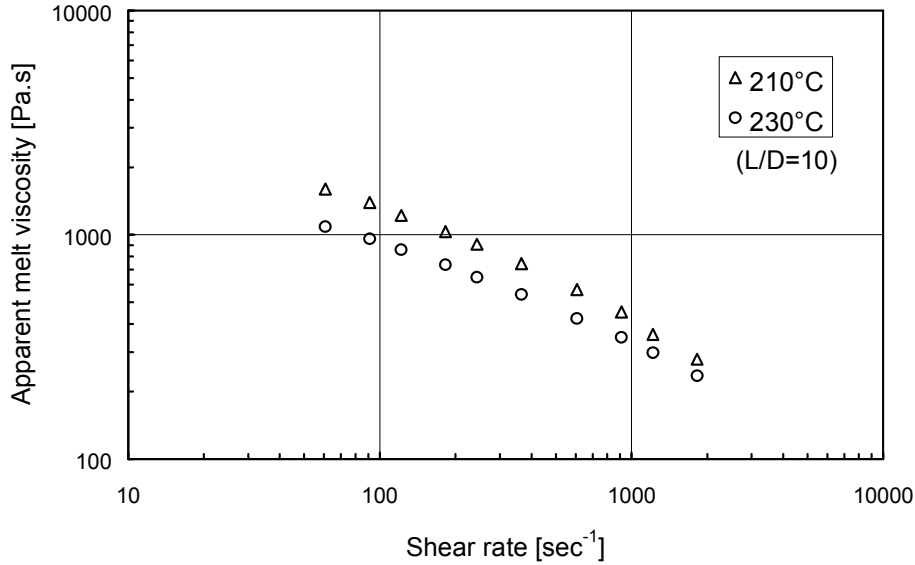


Fig. 1 Melt Viscosity of Soarnol™ DC3205HB

Example of Processing

Extruder : 40 mmφ L/D = 28  
 Screw : full flight, constant pitch type, C.R. = 3.5  
 Screen pack : 90/90 mesh

Processing Temperature

	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	AD
deg.C	190-210	200-220	210-230	210-230	210-230	210-230
deg.F	374-410	392-428	410-446	410-446	410-446	410-446

Thermal Durability

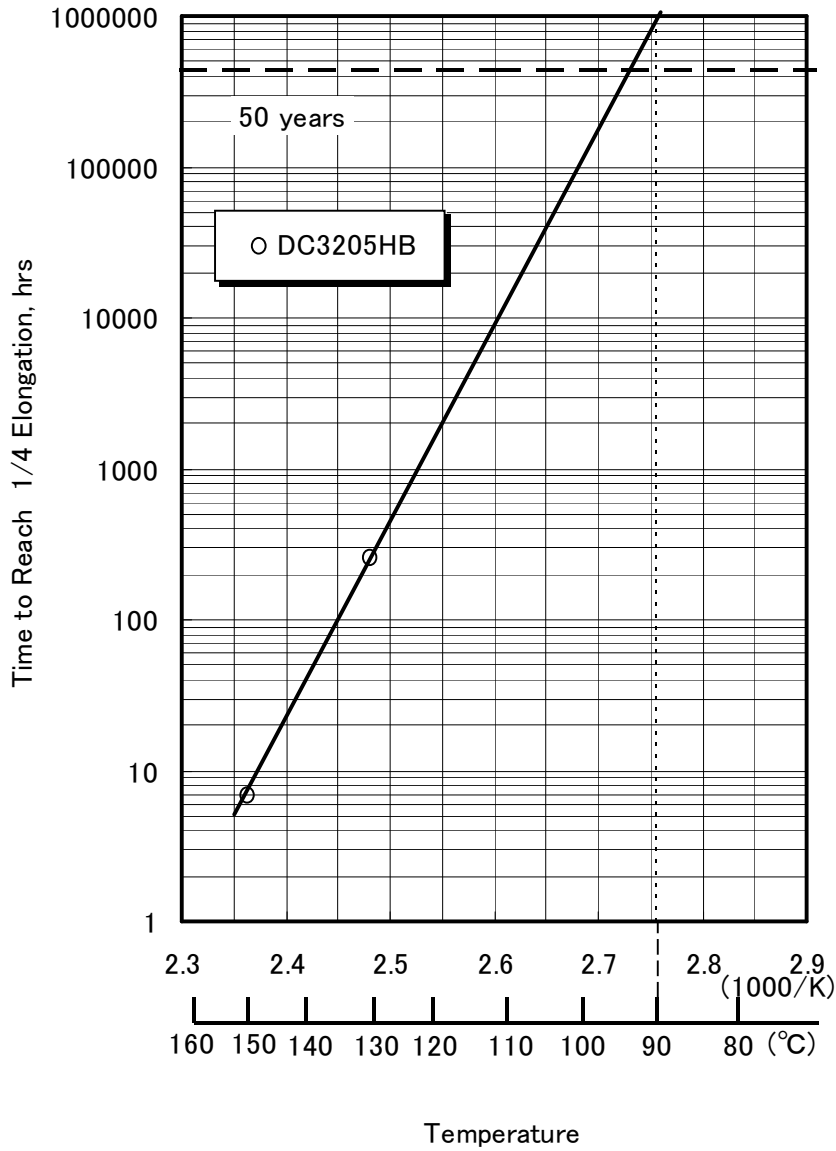


Fig. 2 Thermal Durability of Soamol DC3205HB

## Quality and Safety for Application of Soarnol™ DC3205HB

High quality Soarnol™ is produced by Mizushima plant in Japan, NOLTEX L.L.C. in U.S.A. and NIPPON GOHSEI UK Ltd. in U.K.. All plants are certified to meet the requirement of ISO 9001.

Soarnol™ contains no heavy metals or other harmful substances.

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