

# **Soarnol™ DC3212HB**

## ETHYLENE VINYL ALCOHOL COPOLYMER

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

### Application

Soarnol™ DC3212HB is a special grade of Soarnol™, its ethylene content is 32 mol% with a high MFR (melt flow rate).

Soarnol™ DC3212HB 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	12
Volatile Matter	%	≤0.30
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

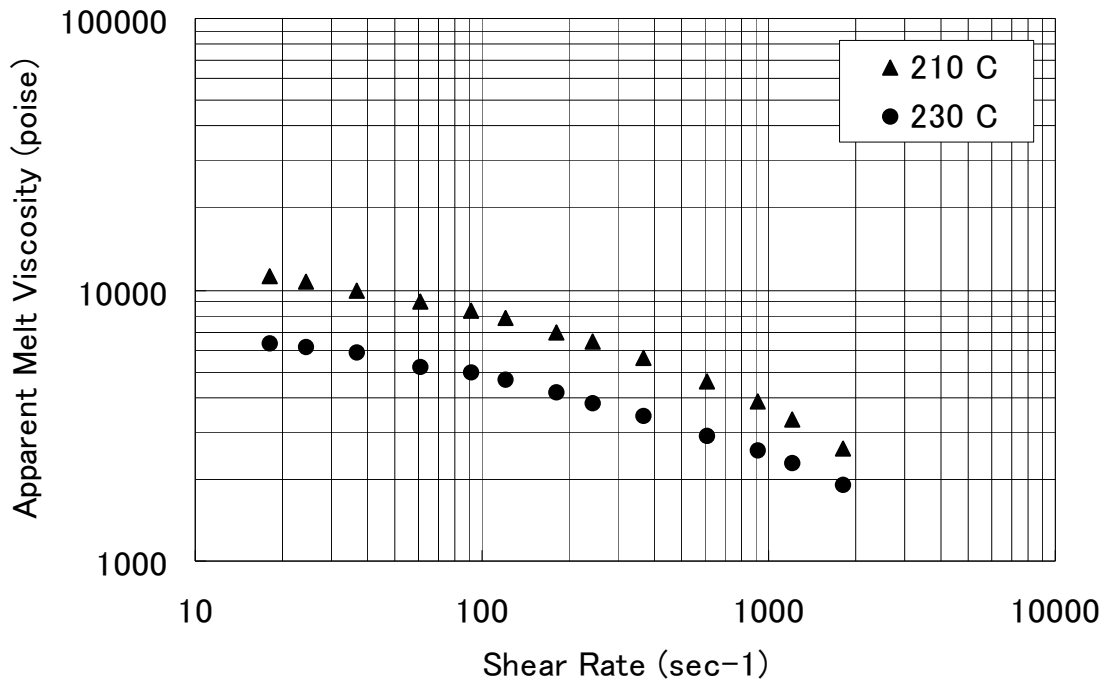


Fig. 1 Melt Viscosity of Soarnol™ DC3212HB

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 (degree C)

C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	AD
190-210	200-220	210-230	210-230	210-230	210-230

**Quality and Safety for Application of Soarnol™ DC3212HB**

High quality Soarnol™ is produced by Okayama plant in Japan, Mitsubishi Chemical America Inc. in U.S.A. and Mitsubishi Chemical 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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## MITSUBISHI CHEMICAL CORPORATION

Polymers & Compounds Domain, Polymers Division, Acetyl Polymers Sector,  
Soarnol Unit

Mitsubishi Chemical Corporation Head Quarters	1-1, Marunouchi 1-Chome, Chiyoda-Ku, Tokyo 100-8251, Japan TEL +81-3-6748-7803 FAX +81-3-3286-1239
Soarus L.L.C	3930 Ventura Drive, Suite 300, Arlington Heights, IL 60004, USA TEL +1-847-255-1211 FAX +1-847-255-4343
Mitsubishi Chemical Europe GmbH	Merowingerplatz 1a, D-40225, Duesseldorf, Germany, Life Science Center TEL +49-211-385488-0 FAX +49-211-385488-29
Mitsubishi Chemical (China) Co.,Ltd.	38-39th Floor, Grand Gateway Office Tower 1, 1 Hongqiao Rd.,Xuhui District, Shanghai, 200030 China TEL +86-21-5407-6161 FAX +86-21-5407-6262
Mitsubishi Chemical Singapore Pte. Ltd.	41 Science park Road #02-12/13 The Gemini Singapore Science Park II Singapore 117610 TEL +65-6279-0200 FAX +65-6423-1562
Soarnol Research & Development Institute	3-10, Ushiodori, Kurashiki, Okayama 712-8054, Japan TEL +81-86-455-5214 FAX +81-86-455-5289

URL: <http://www.soarnol.com/>  
<https://www.m-chemical.co.jp/>