Soarnol™

Technical Data Sheet

Revised date on 1 Feb. 2024

Soarnol™ E3808

ETHYLENE VINYL ALCOHOL COPOLYMER (EVOH)

38 mol% Ethylene Content

Application

Soarnol™ E3808 is one of the standard grades of Soarnol™, its ethylene content is 38 mol% with an intermediate MFR (melt flow rate).

Soarnol™ E3808 has excellent barrier to gases.

This resin is primarily used in co-extruded cast film and co-extrusion coating applications.

Furthermore, it can also be used in thermoforming and shrink packaging.

General Properties

Properties	Unit	Value
Ethylene Content	mol%	38
MFR[1)] (210 degree C, 2160g)	g/10min	8.0
Volatile Matter	%	≦0.30
Melting Point[2)]	degree C	173
Crystallization Temp.[2)]	degree C	152
Glass Transition Temp.[2)]	degree C	58
Density[3)] (23 degree C)	g/cm^3	1.17
Oxygen Permeability[4)] (20 degree C x 65%RH)	cc.20μm / m^2.day.atm cc.mil / 100inch^2.day.atm	0.5 0.025

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 2/22 (MOCON)

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

MITSUBISHI CHEMICAL GROUP

Revised date on 1 Feb. 2024

Melt Viscosity

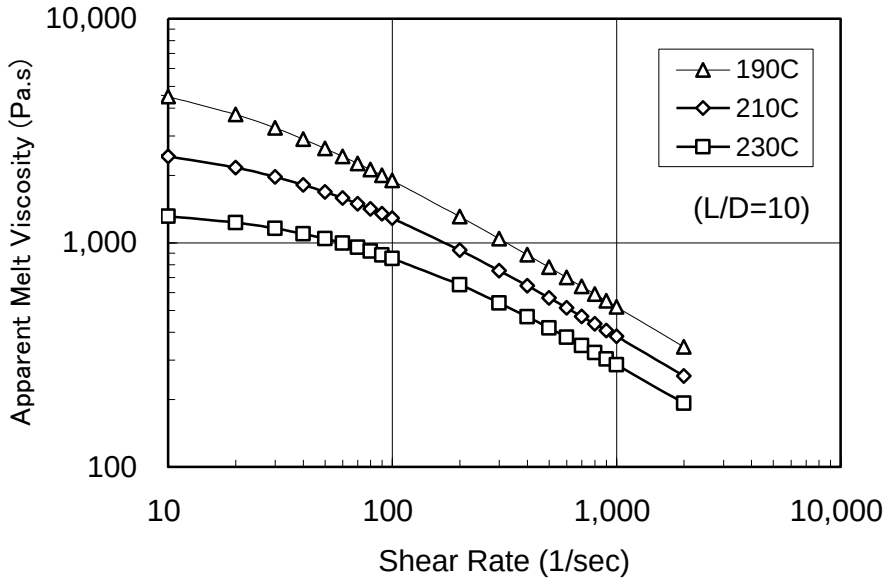

Fig. 1 Melt Viscosity of Soarnol™ E3808

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_1	C_2	C_3	C_4	C_5	AD
170-200	185-210	200-230	200-230	200-230	200-230

SoarnoL™

Technical Data Sheet

Revised date on 1 Feb. 2024

Quality and Safety for Application of SoarnoL™ E3808

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. SoarnoL™ meets the Food Sanitation Standards of various countries.
Please contact us to inquire about food product hygiene for the various SoarnoL™ brands or for food hygiene conformity in other countries.

JAPAN : Ministry of Health and Welfare Announcement No.370(1959) and Its Latest Amendment No.196(2020)
U.S.A : US FDA 21, C.F.R. §177.1360
EU : Commission Regulation (EU)No. 10/2011 and its amendments
CHINA : GB9685-2016, GB4806.6-2016, GB4806.7-2023 (Enforced on September 6, 2024) and their amendments

---

MITSUBISHI CHEMICAL CORPORATION

Soarnol Dept. Polymers Division, Polymers & Compounds / MMA Business Group

Mitsubishi Chemical Corporation Head Quarters	1-1, Marunouchi 1-Chome, Chiyoda-Ku, Tokyo 100-8251, Japan TEL +81-3-6748-7803
Soarus L.L.C	3930 Ventura Drive, Suite 300, Arlington Heights, IL 60004, USA TEL +1-847-255-1211
Mitsubishi Chemical Europe GmbH	Schiessstraße 47, 40549 Düsseldorf, Germany TEL +49-211-52054-10
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
Mitsubishi Chemical Singapore Pte. Ltd.	41 Science park Road #02-12/13 The Gemini Singapore Science Park II Singapore 117610 TEL +65-6279-0200
Soarnol Laboratory	3-10, Ushiodori, Kurashiki, Okayama 712-8054, Japan TEL +81-86-455-5214

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

MITSUBISHI CHEMICAL GROUP