

# Soaresin™ RG100

## Additive for PP/EVOH Regrind

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### Application

Soaresin™ RG100 is an additive specifically designed for processing PP/EVOH regrind. This resin is very useful for preventing the formation of gels and fish eyes.

### General Properties

Properties	Unit	Value
MFR <sup>1)</sup> (190 degree C, 2160g)	g/10min	2.5
Volatile Matter	%	< 0.3
Melting Point <sup>2)</sup>	degree C	112
Density <sup>3)</sup> (23 degree C)	g/cm <sup>3</sup>	0.98

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

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

### How to use

Blend RG100 at a 2 - 5 wt% concentration into the regrind layer.

## Melt Viscosity

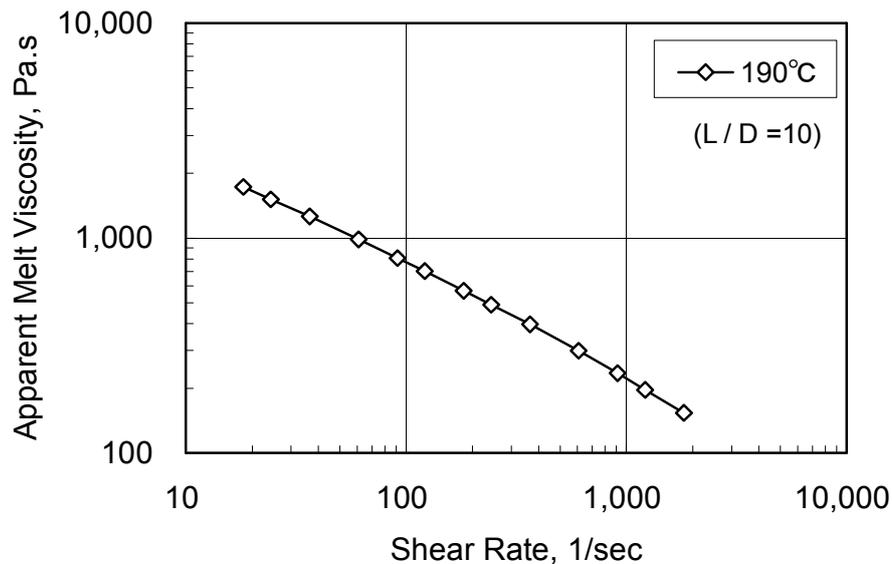


Fig. 1 Melt Viscosity of Soaresin™ RG100

## Effect of Soaresin™ RG100

### Condition of regrind test

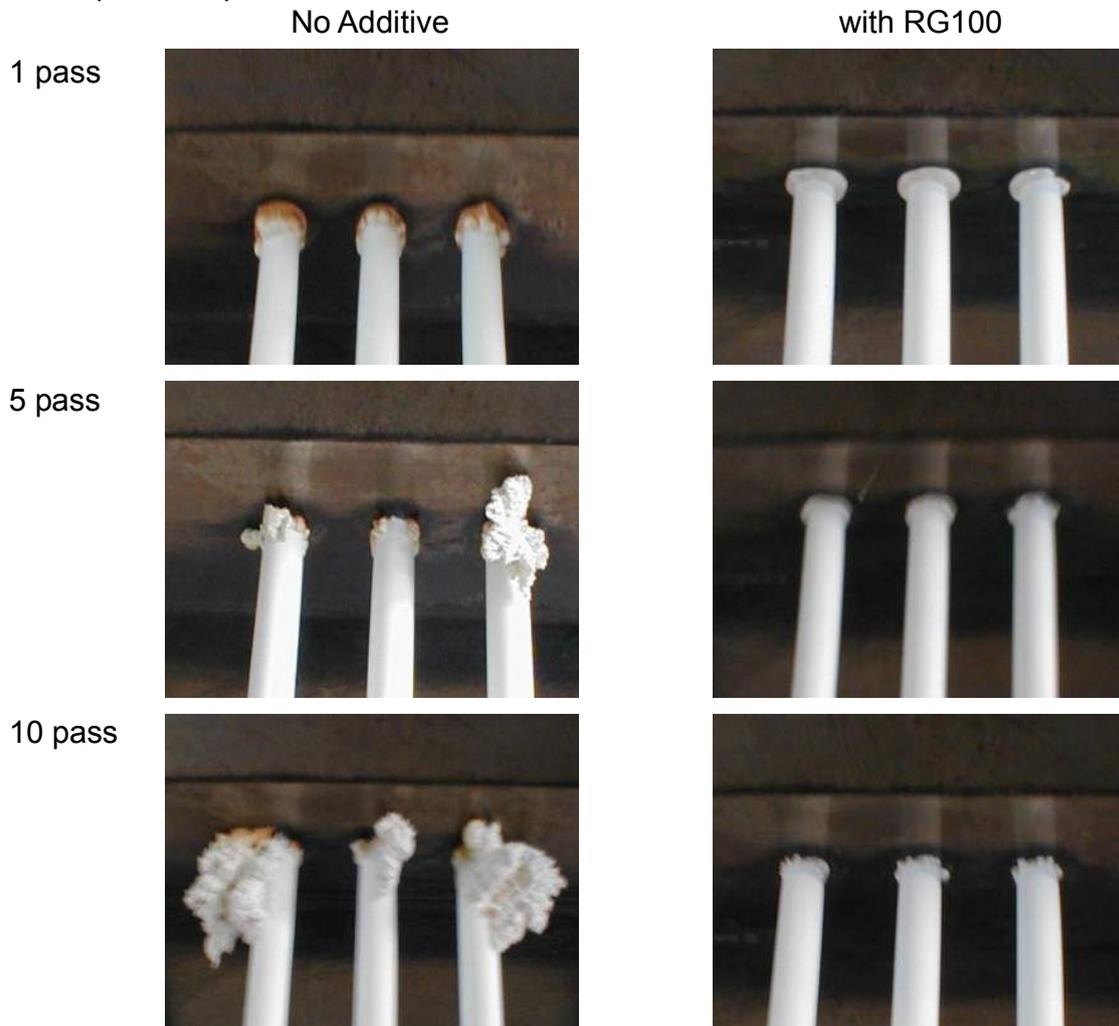
Extruder	40mmD Single screw extruder (L/D=28)
Screw	Full flight
Screen pack	90mesh × 2pack
Processing temp.	C1/C2/C3/C4/D = 200/220/230/230/220 degreeC
Screw rotation	40 rpm
Re-extruded times	10 times
Resin composition	TiO <sub>2</sub> +PP/Tie/EVOH/RG100 = 90/5/5/3 (wt%)

Results of regrind test

Additive	Build-up		Film appearance*		
	Die	screw	fish-eyes	surface	Color
RG100	slight	none	slight	flat	uniform
None	many	a little	a little	rough	uneven

\*: evaluate by mono-layer film

Buildup at die-lip



-> RG100 leads much less buildup.

## Quality and Safety for Application of Soaresin™ RG100

High quality Soaresin™ 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.

Soaresin™ RG100 contains no heavy metals or other harmful substances. Soaresin™ RG100 meets the Food Sanitation Standards of various countries.

U.S.A : Federal Food, Drug and Cosmetic Act

EU : Commission Regulation (EU)No. 10/2011 and its amendments

JAPAN : Ministry of Health and Welfare Announcement No.370(1959) and Its Latest Amendment No.18(1994)

Voluntary Standards for Food Contact Substances and Polymers (JHOSPA)

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