



## RETAIN™ 3000

The Dow Chemical Company - Functional Polymer

Sunday, November 3, 2019

### General Information

#### Product Description

RETAIN™ 3000 is a functional polymer which promotes compatibilization between polyolefins and polar polymers such as ethylene vinyl alcohol (EVOH) and polyamide (Nylon) and blends of polar polymers. RETAIN™ 3000 functions to enhance the dispersion of the polar polymers into the polyolefin matrix such that the haze of the resulting structure is minimized. The utility may be achieved where the polyolefin is either a polyethylene or polypropylene.

Main Characteristics:

- Good compatibilization between polyolefins and polar polymers
- Wide range of process and service temperature
- For blown and cast film
- May be used in-line or pre-compounded

Complies with:

- EU, No 10/2011
- US FDA 21 CFR 175.105 (c)(5)

Consult the regulations for complete details.

#### General

|                 |                                          |                             |                 |
|-----------------|------------------------------------------|-----------------------------|-----------------|
| Material Status | • Commercial: Active                     |                             |                 |
| Availability    | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Agency Ratings  | • EU No 10/2011                          | • FDA 21 CFR 175.105(c) (5) |                 |
| Forms           | • Pellets                                |                             |                 |

### ASTM & ISO Properties<sup>1</sup>

| Physical                                  | Nominal Value | Unit | Test Method     |
|-------------------------------------------|---------------|------|-----------------|
| Density / Specific Gravity                | 0.872         |      | ASTM D792       |
| Gardner Color                             | < 5.00        |      | ASTM D3417      |
| MAH Graft Level <sup>2</sup>              | High          |      | Internal Method |
| Thermal                                   | Nominal Value | Unit | Test Method     |
| Glass Transition Temperature              | -72.4         | °F   | Internal Method |
| Melting Temperature                       | 154           | °F   | Internal Method |
| Fill Analysis                             | Nominal Value | Unit | Test Method     |
| Brookfield Viscosity <sup>3</sup> (350°F) | 13.0          | Pa·s | ASTM D1084      |

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Low: <0.25 wt%, Medium 0.25-0.5, High >0.5 wt%

<sup>3</sup> The Brookfield viscosity would correspond to a melt index of about 660 (2.16 kg @ 190C)