

# AMPLIFY™ TY 3351B

## The Dow Chemical Company - Functional Polymer

Sunday, November 3, 2019

### **General Information**

#### **Product Description**

TY 3351B is a member of the AMPLIFY™ Functional polymer portfolio. These polymers are maleic anhydride grafted (MAH) polyolefins which are designed for the tie layer and polymer modifier market segments. TY 3351B is a grafted polymer composite that is intended to be used in multi-layer barrier structures where adhesion is needed between a range of polymers such as polyolefins, polystyrene, EVOH or polyamide (PA). Due to the excellent processing characteristics of this grade, excellent adhesion may be achieved in using conventional multi-layer extrusion equipment.

### Main Characteristics:

- · Versatile utility grade
- · Strong adhesion to many polar substrates PA, EVOH, PET
- Strong adhesion to many non-polar substrates PE, PP, PS
- · Wide range of process and service temperatures
- · Low gels to ensure minimal defects

#### Complies with:

US FDA 21 CFR 175.105

Consult the regulations for further details.

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|---|--|--|----------|--|
| General                                 |  |  |          |  |
| Material Status                         | <ul> <li>Commercial: Active</li> </ul> | Commercial: Active                     |          |  |
| Availability                            | Asia Pacific                           | Latin America                          |          |  |
|   | <ul> <li>Europe</li> </ul>             | <ul> <li>North America</li> </ul>      |          |  |
| Additive                                | Antiblock: No                          | <ul> <li>Processing Aid: No</li> </ul> | Slip: No |  |
| Agency Ratings                          | • FDA 21 CFR 175.105                   |  |          |  |
| Forms                                   | Pellets                                |  |          |  |

| ASTM & ISO Properties <sup>1</sup>  |               |          |                 |  |  |
|-------------------------------------|---------------|----------|-----------------|--|--|
| Physical                            | Nominal Value | Unit     | Test Method     |  |  |
| Density                             | 0.940         | g/cm³    | ASTM D792       |  |  |
| Melt Mass-Flow Rate (190°C/2.16 kg) | 3.0           | g/10 min | ASTM D1238      |  |  |
| MAH Graft Level <sup>2</sup>        | Medium        |          | Internal Method |  |  |
| Thermal                             | Nominal Value | Unit     | Test Method     |  |  |
| Vicat Softening Temperature         | 194           | °F       | ASTM D1525      |  |  |
| Melting Temperature                 | 259           | °F       | DSC             |  |  |
| Optical                             | Nominal Value | Unit     | Test Method     |  |  |
| Yellowness Index <sup>3</sup>       | < 10          | YI       | ASTM D2457      |  |  |

| Processing Information |                    |  |  |
|------------------------|--------------------|--|--|
| Extrusion              | Nominal Value Unit |  |  |
| Melt Temperature       | 260 to 450 °F      |  |  |

# Extrusion Notes

Fabrication Conditions for Multi-layer film applications are not defined at this time.

#### Notes

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> Maleic Anhydride level is defined as Low: <0.25 wt%, Medium 0.25-0.5 wt%, High >0.5 wt% MAH
- <sup>3</sup> pellets

