

SANTOPRENE® 121-80B265

SANTOPRENE®

Santoprene® 121-80B265 is a black thermoplastic vulcanizate (TPV) that combines low coefficient of friction with good bonding to TPV and EPDM rubber. This grade offers improved heat aging performance and excellent processability for injection molding of complex geometries with excellent surface aesthetics. It has low friction retention after heat aging without surface bleeding. It has been designed for corner molding and end cap of automotive extruded weather seals in TPV or in EDPM rubber.

Key Features

- Low friction injection molding grade
- Specially formulated to replace thermoset EPDM rubber in automotive glass run channel (GRC) corner molding applications
- Designed for shorter processing cycle time compared to thermoset EDPM rubber
- Adheres to vulcanized EPDM rubber and TPV
- Built-in low coefficient of friction properties
- Good flowability with excellent surface aspect

Product information

Resin Identification	TPV	ISO 1043
Part Marking Code	>TPV<	ISO 11469

Typical mechanical properties

Shore A hardness, 15s	0.000079	ISO 48-4 / ISO 868
Compression set, 70 °C, 24h	46 %	ISO 815
Tear strength, normal	32 kN/m	ISO 34-1

Physical/Other properties

Density	919 kg/m ³	ISO 1183
---------	-----------------------	----------

Injection

Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	3 h
Processing Moisture Content	≤0.08 %
Max. regrind level	20 %
Melt Temperature Optimum	215 °C
Min. melt temperature	165 °C
Max. melt temperature	265 °C
Mold Temperature Optimum	50 °C
Min. mould temperature	20 °C
Max. mould temperature	80 °C
Ejection temperature	84 °C

Additional information

Processing Notes

Processing Notes

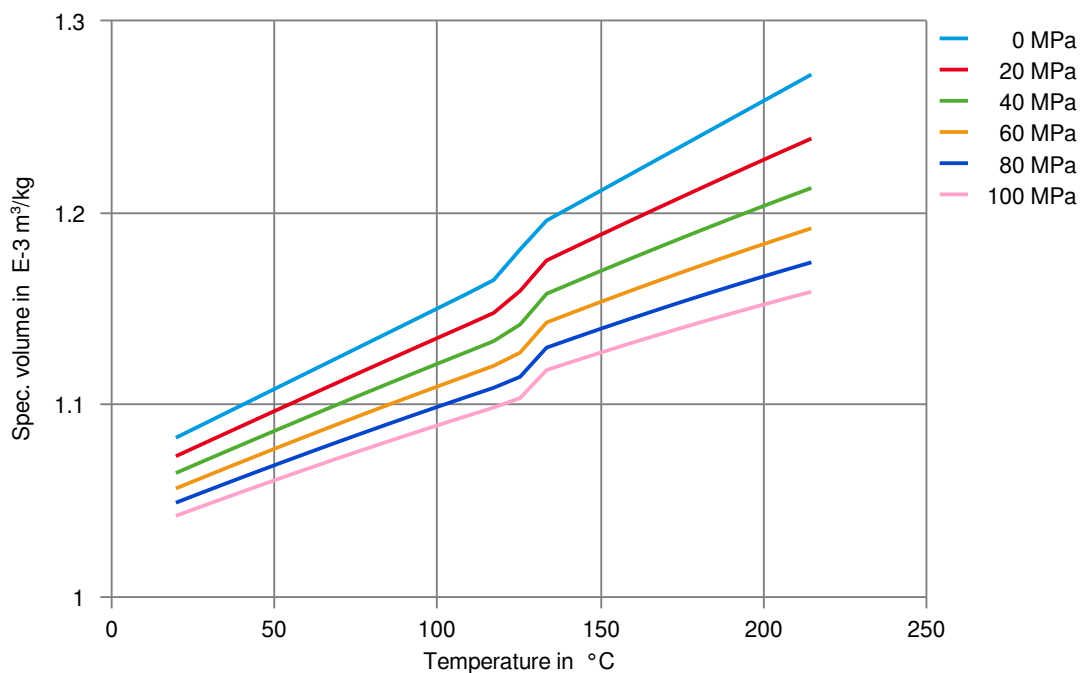
Desiccant drying for 3 hours at 80 °C (180 °F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230 °C (350 to 450 °F). In order to obtain good bonding on an EPDM sponge profile, the injection speed should be fast (60 - 100mm/sec) and at a very high temperature in a warm

SANTOPRENE® 121-80B265

SANTOPRENE®

mold. The injection pressure should be moderate and the holding pressure kept low in order to prevent profile deformation. The profile should be perfectly positioned in the mold and maintained without deformation to ensure maximum surface interaction with the melt. Cooling time should be longer than a typical TPV in order to initiate recrystallization at the contact interface. Santoprene® TPV is incompatible with acetal and PVC.

Specific volume-temperature (pvT)



SANTOPRENE® 121-80B265

SANTOPRENE®

Printed: 2024-04-30

Page: 3 of 3

Revised: 2024-02-06 Source: Celanese Materials Database

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

© 2024 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.