

## SABIC® HDPE CC860

HIGH DENSITY POLYETHYLENE

### DESCRIPTION

SABIC® HDPE CC860 is a high-density polyethylene especially developed for injection and compression molding of still water caps that meet organoleptic properties requirements. The material offers an ideal combination of rigidity, impact strength and low warpage.

### TYPICAL APPLICATIONS

- Caps & Closures for the packaging of still mineral water.
- Caps & Closures for beverage food and industrial packaging.

### TYPICAL PROPERTY VALUES

Revision 20230421

| PROPERTIES                                              | TYPICAL VALUES | UNITS             | TEST METHODS |
|---------------------------------------------------------|----------------|-------------------|--------------|
| <strong>POLYMER PROPERTIES <sup>(1)</sup></strong>      |                |                   |              |
| <strong>Melt Flow Rate (MFR)</strong>                   |                |                   |              |
| @ 190°C & 2.16 kg load                                  | 7.0            | g/10 min          | ASTM D1238   |
| <strong>Density at 23°C</strong>                        | 957            | kg/m <sup>3</sup> | ASTM D1505   |
| <strong>Sensoric (Organoleptic Properties)</strong>     | Approved       | -                 | SABIC method |
| <strong>MECHANICAL PROPERTIES <sup>(2)</sup></strong>   |                |                   |              |
| <strong>Tensile test</strong>                           |                |                   |              |
| Strength @ Yield                                        | 25             | MPa               | ASTM D638    |
| Strength @ Break                                        | 10             | MPa               | ASTM D638    |
| Elongation @ Break                                      | >650           | %                 | ASTM D638    |
| <strong>Flexural test</strong>                          |                |                   |              |
| Flexural Strength                                       | 23             | MPa               | ASTM D790    |
| Flexural Modulus                                        | 750            | MPa               | ASTM D790    |
| <strong>Izod impact notched</strong>                    |                |                   |              |
| @ 23 °C                                                 | 74             | J/m               | ASTM D256    |
| <strong>Hardness (Shore D)</strong>                     | 51             | -                 | ASTM D2240   |
| <strong>ESCR (100% Igepal), F50 <sup>(3)</sup></strong> | >4             | Hrs               | ASTM D1693B  |
| <strong>THERMAL PROPERTIES <sup>(1)</sup></strong>      |                |                   |              |
| <strong>Vicat Softening Point</strong>                  | 127            | °C                | ASTM D1525   |
| <strong>Brittleness Temperature</strong>                | <-75           | °C                | ASTM D746    |

(1) Typical values: not to be construed as specification limits

(2) Based on injection molded specimens.

(3) Based on compression molded sheet

### PROCESSING CONDITIONS

Barrel temperature: 200-250°C (390-480°F)

Mold temperature: 15-60°C (60-140°F)

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CHEMISTRY THAT MATTERS™



### STORAGE AND HANDLING

Polyethylene material should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably don't exceed 50°C. SABIC would not give warranty to bad storage conditions, which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.

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