

# Eltex® Superstress™ CAP508S2

High Density Polyethylene Copolymer  
INEOS Olefins & Polymers Europe

## Technical Data

### Product Description

Eltex® Superstress™ CAP508S2 is a High Density Polyethylene copolymer manufactured by INEOS Olefins & Polymers Europe using its proprietary supported catalyst & process, particularly intended for the injection and compression moulding of screw caps for the packaging of beverages. It is especially suited for applications requiring excellent stress cracking resistance and enhanced processability. Thanks to high purity and excellent organoleptic properties it is well suited for packaging in direct contact with beverages and sensitive food.

#### Typical applications

- Injection Moulding and Compression Moulding of Caps & Closures for the packaging of sparkling water and carbonated soft drinks; especially in reduced weight cap designs
- Injection Moulding of thin wall packaging, especially for the food industry

#### Benefits and Features

- Very good processability
- High stress cracking resistance
- Excellent quality controlled organoleptic properties
- Grade containing a Slip Agent of good efficiency to reduce the friction at application and opening of caps.

Note : exposure to direct sunlight has to be avoided as the slip agent is light sensitive and its degradation can give off-taste to the beverage.

### General

|                           |                                                       |                                                             |                         |
|---------------------------|-------------------------------------------------------|-------------------------------------------------------------|-------------------------|
| Material Status           | • Commercial: Active                                  |                                                             |                         |
| Literature <sup>1</sup>   | • <a href="#">Technical Datasheet (English)</a>       |                                                             |                         |
| Search for UL Yellow Card | • <a href="#">INEOS Olefins &amp; Polymers Europe</a> |                                                             |                         |
| Availability              | • Europe                                              |                                                             |                         |
| Additive                  | • Slip                                                |                                                             |                         |
| Features                  | • Copolymer<br>• Good Organoleptic Properties         | • Good Processability<br>• High ESCR (Stress Crack Resist.) | • High Purity<br>• Slip |
| Uses                      | • Caps<br>• Closures                                  | • Food Packaging<br>• Packaging                             | • Thin-walled Packaging |
| RoHS Compliance           | • Contact Manufacturer                                |                                                             |                         |
| Processing Method         | • Compression Molding                                 | • Injection Molding                                         |                         |

| Physical                                         | Nominal Value Unit | Test Method     |
|--------------------------------------------------|--------------------|-----------------|
| Density                                          | 0.953 g/cm³        | ISO 1183        |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)        | 1.8 g/10 min       | ISO 1133        |
| Environmental Stress-Cracking Resistance<br>40°C | 32.0 hr            | Internal Method |

| Mechanical                   | Nominal Value Unit | Test Method  |
|------------------------------|--------------------|--------------|
| Tensile Modulus (23°C)       | 1000 MPa           | ISO 527-2/1B |
| Tensile Stress (Yield, 23°C) | 26.0 MPa           | ISO 527-2/1B |

| Impact                                  | Nominal Value Unit | Test Method |
|-----------------------------------------|--------------------|-------------|
| Charpy Unnotched Impact Strength (23°C) | 5.5 kJ/m²          | ISO 179     |

### Additional Information

In order to preserve the excellent organoleptic properties, it is important not to exceed a melt temperature of 250°C during processing.

### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> Typical properties: these are not to be construed as specifications.