

A Material Difference

# Dryflex<sup>®</sup> CS

TPE Materials with Optimised  
Compression Set



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# Introduction

Dryflex CS is a range of thermoplastic elastomer (TPE) materials, based on SEBS. The range has been engineered to deliver optimised compression set performance.

The raw materials used to manufacture Dryflex CS compounds are compliant with food contact regulations. The compounds also offer excellent organoleptic performance.

Typical applications include gaskets, flexible connectors, food packaging, valves and seals.

## **Firstly, a Word About Customisation...**

In this guide we show typical properties for our most common grades, these tables are not exhaustive and by no means list all available properties and materials. Our aim is to supply a material that precisely matches application requirements and where an existing grade cannot satisfy the specific demands of your application, we have the proven expertise to customise a material that will.

Please use this guide as an introduction to the Dryflex CS range of TPEs and [contact us](#) to discuss your specific requirements.

# Key Properties

- Low compression set
- Hardness range from 40 to 90 Shore A
- Raw materials are compliant with major food contact regulations (food contact statements are available on request)
- Easy to colour
- Transparent grades available
- Service temperature range from -40 to 100°C
- Adhesion to PP and PE
- Recyclable in closed-loop systems
- Low odour
- Excellent mechanical properties
- Suitable for extrusion and injection moulding

# Typical Dryflex CS Grades

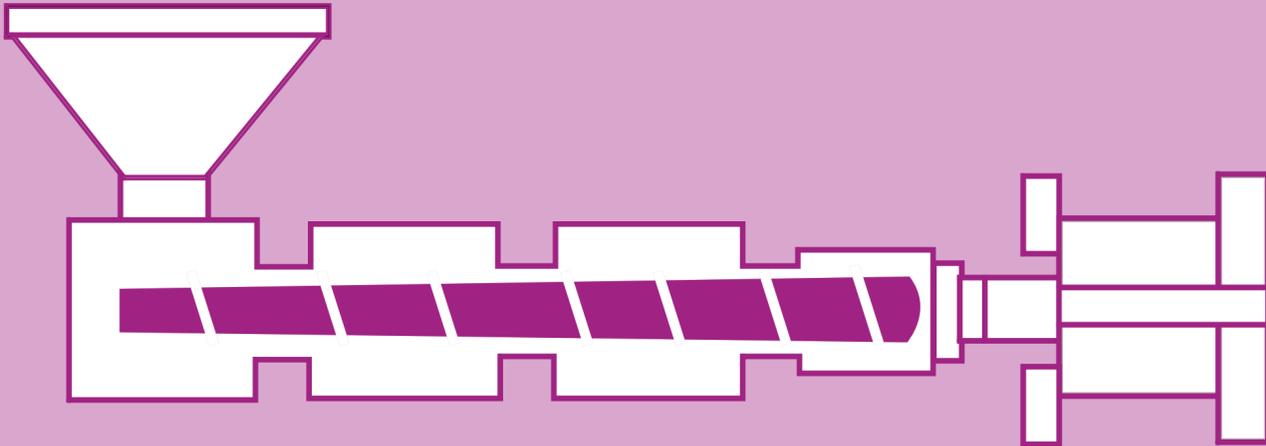
Grade	Hardness <sup>1</sup> ISO 868 Shore A	Density ISO 2781 g/cm <sup>3</sup>	Tensile Strength <sup>2</sup> ISO 37 Type 1 MPa	Elongation at Break <sup>2</sup> ISO 37 Type 1 %	Tear Strength <sup>2</sup> ISO 34-1 Method C N/mm	CS 23°C / 72h ISO 815-1 Type B %	CS 70°C / 22h ISO 815-1 Type B %	CS 100°C / 22h ISO 815-1 Type B %
Dryflex CS 40A001N	40	0.89	4.6	> 850	13	21	33	40
Dryflex CS 50A001N	50	0.89	5.3	> 800	15	23	34	41
Dryflex CS 60A001N	60	0.89	8.2	> 850	20	24	35	41
Dryflex CS 70A001N	70	0.89	14	> 900	25	27	37	45
Dryflex CS 80A001N	80	0.89	16	> 850	31	32	48	55
Dryflex CS 90A001	90	0.89	25	> 900	46	39	59	65

<sup>1</sup> After 15 seconds

<sup>2</sup> Across the flow direction

# Processing : Extrusion Guidelines

<b>L/D Ratio:</b>	<b>20:1 to 25:1</b>
<b>Compression Ratio:</b>	<b>2.5 to 3.0</b>
<b>Breaker Plate/Screen:</b>	<b>Both should be used</b>
<b>Draw Down:</b>	<b>5 to 10%</b>
<b>Cooling:</b>	<b>Cold water bath</b>



Recommended start-up temperatures °C

150 - 160

160 - 170

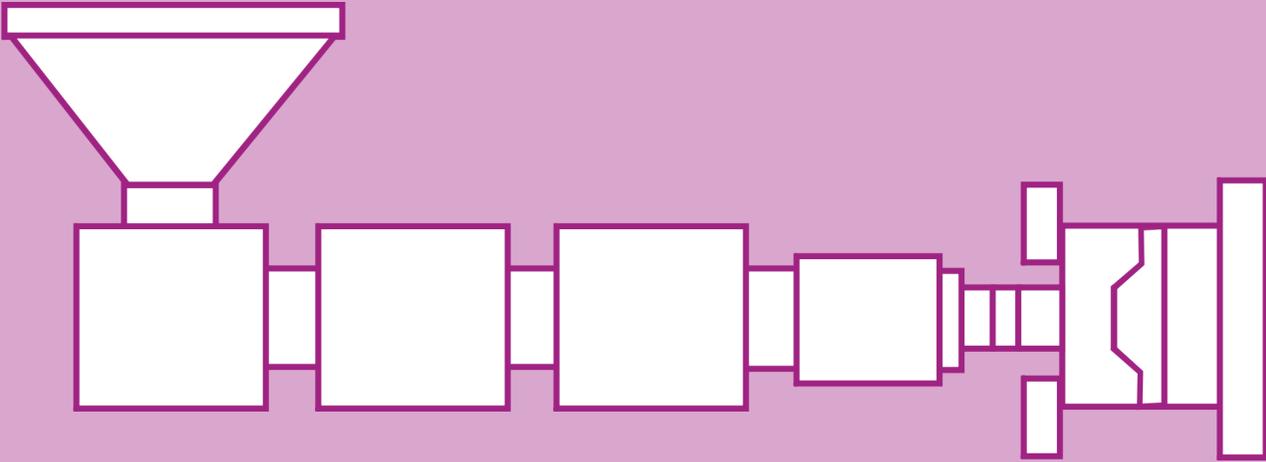
170 - 180

180 - 190

180 - 200

# Processing : Injection Moulding Guidelines

- Injection Speed:** Medium - Fast
- Injection Pressure:** Medium - Fast
- Back Pressure:** Low - Medium
- Holding Pressure:** Sufficient to pack the mould
- Cooling:** Can be demoulded when parts have cooled sufficiently



Recommended start-up temperatures °C

190 - 200    200 - 210    210 - 220    220 - 230    15 - 50

# Processing

Dryflex CS TPEs can be processed without predrying when stored under normal conditions. If poor surface finish, bubbles, voids or streaks are seen on the finished article then material should be dried for 2 to 3 hours at 80°C. Cycle times will be governed by temperature and section thickness.

Care must be taken to allow sufficient cooling of the section prior to demoulding in order to prevent permanent distortion of the article. Venting of extrusion lines may be used as a method of preventing the build up of volatiles during continuous processing.

This processing information is intended only as a guide. The actual parameters will depend on the machine used and the moulding being produced.

[More Processing & Problem Solving Information >](#)

# More Dryflex TPE Ranges

Click for more information

**Dryflex® 2K**  
2K

**Dryflex® AM**  


**Dryflex® Antimicrobial**  


**Dryflex® C**  


**Dryflex® Circular**  


**Dryflex® DW**  

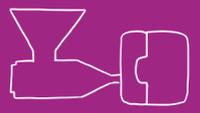

**Dryflex® Flam**  


**Dryflex® Green**  


**Dryflex® HiF**  


**Dryflex® Interior**  
VOC  


**Dryflex® PS**  


**Dryflex® SE**  


**Dryflex® T**  


**Dryflex® Touch**  


**Dryflex® TPV**  
TPV

# ABOUT US



[info@hexpolTPE.com](mailto:info@hexpolTPE.com) | [www.hexpolTPE.com](http://www.hexpolTPE.com)

**80,000+**  
T/P.A. CAPACITY

Across our Sweden, UK, German, China & North America operations. [Our companies](#)

**50+**  
YEARS HISTORY

We've a proud history in flexible polymer compounding & were among the 1st to produce TPEs in Europe. [About us](#)

**34,795+**  
FORMULATIONS

A comprehensive portfolio in TPE, TPS, TPO, TPU, TPV, soft PVC & Biobased technologies. Learn more about [Our products](#)

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