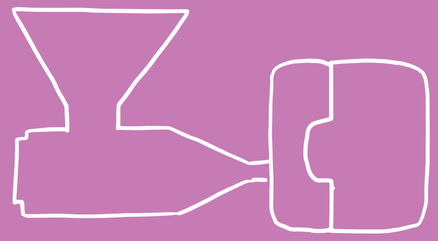
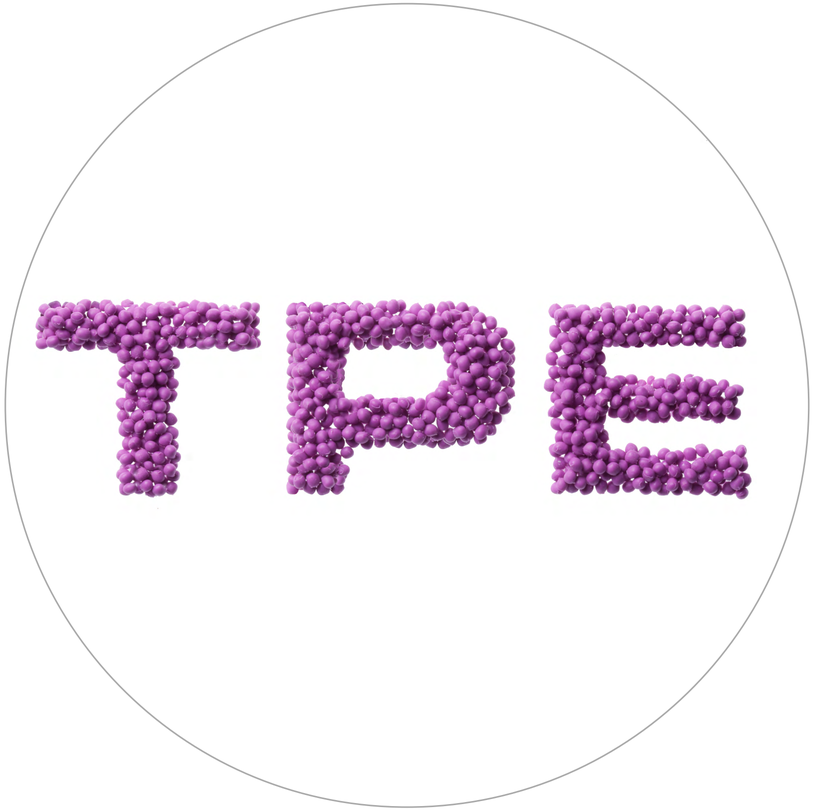
A Material Difference

Dryflex® SE

Our standard TPE range,
optimised for injection moulding





HEXPOL® TPE

CONTENTS

INTRODUCTION

Dryflex SE is our standard TPE range. It is extremely adaptable and can be used in a wide range of applications. The compounds are easy to process and are optimised for injection moulding.

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 SE range of TPEs and **contact us** to discuss your specific requirements.

KEY PROPERTIES

- Unfilled, semi-filled & filled series
- 30 to 90 Shore A hardnesses
- Translucent, black, natural or coloured compounds available
- Good adhesion to PP & PE
- High flexibility
- Easy processing via injection moulding
- Good mechanical properties
- Applications with food contact are possible
- Service temperature range from -50°C to 125°C (unstressed)
- Conforms to European Directives 2002/95/EC (RoHS) & 2003/11/EC
- 100% recyclable

DRYFLEX SE : SERIES OVERVIEW

Unfilled Series

The Dryflex SE unfilled series is a good choice when translucency and scratch resistance are required, or when there are high surface finish requirements. The material allows for easy and secure pigmenting.

Unfilled grades have excellent flow and mechanical properties. The low density results in lower weight compared to the filled and semi-filled series.

Dryflex SE unfilled compounds are available in hardness from 30 to 90 Shore A in natural and black but they can easily be coloured.

Grade Table >

Filled Series

The most significant features of the Dryflex SE filled series are an improved heat stability.

A filled material reduces the stickiness and sink marks on thick details but has limited scratch resistance.

The filled grades generally allow for fast demoulding and shorter cycle times.

Compounds in the Dryflex SE filled series are available in hardness from 30 to 90 Shore A in natural and black but they can easily be coloured.

Grade Table >

Semi-Filled Series

A semi-filled material can therefore combine the advantages of the other two series.

The material has good flow and mechanical properties as well as reasonable scratch resistance.

TPE compounds in the Dryflex SE semi-filled series are available in hardness from 30 to 90 Shore A in natural and black but they can easily be coloured.

Grade Table >

DRYFLEX SE : UNFILLED SERIES

Grade	Hardness[1] ISO 868 Shore A	Density ISO 2781 g/cm3	Tensile Strength[2] ISO 37 Type 1 MPa	Stress at 100% Strain[2] ISO 37 Type 1 MPa	Stress at 300% Strain[2] ISO 37 Type 1 MPa	Elongation at Break[2] ISO 37 Type 1 %	Tear Strength[2] 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 SE 30A001	30	0.89	7.0	0.6	1.2	> 850	13.4	14	30	56
Dryflex SE 35A001	35	0.89	7.6	0.7	1.3	> 900	14.4	16	35	56
Dryflex SE 40A001	40	0.89	7.9	0.9	1.5	> 900	15.5	21	35	58
Dryflex SE 45A001	45	0.89	8.1	1.2	1.8	> 900	18.0	21	35	59
Dryflex SE 50A001	50	0.89	8.5	1.3	2.0	> 850	19.6	23	36	59
Dryflex SE 55A001	55	0.89	9.0	1.6	2.3	> 850	19.8	24	38	59
Dryflex SE 60A001	60	0.89	10.1	2.0	2.8	> 850	24.5	26	42	63
Dryflex SE 65A001	65	0.89	10.3	2.1	2.9	> 850	25.3	28	44	66
Dryflex SE 70A001	70	0.89	10.5	2.2	3.0	> 800	29.3	31	47	69
Dryflex SE 75A001	75	0.89	10.9	2.5	3.5	> 800	30.5	31	50	70
Dryflex SE 80A001	80	0.89	11.2	3.5	4.5	> 700	36.8	39	56	74
Dryflex SE 85A001	85	0.89	11.8	4.2	5.2	> 700	42.5	40	57	75
Dryflex SE 90A001	90	0.89	15.2	4.9	6.0	> 700	50.5	41	61	76

[1] After 15 seconds
[2] Across the flow direction

DRYFLEX SE : FILLED SERIES

Grade	Hardness[1] ISO 868 Shore A	Density ISO 2781 g/cm3	Tensile Strength[2] ISO 37 Type 1 MPa	Stress at 100% Strain[2] ISO 37 Type 1 MPa	Stress at 300% Strain[2] ISO 37 Type 1 MPa	Elongation at Break[2] ISO 37 Type 1 %	Tear Strength[2] 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 SE 30A301	30	1.18	3.4	0.7	1.3	> 700	18.2	10	30	63
Dryflex SE 35A301	35	1.18	4.1	0.8	1.5	> 700	18.6	10	30	63
Dryflex SE 40A301	40	1.18	5.5	0.9	1.5	> 750	18.8	12	30	66
Dryflex SE 45A301	45	1.18	5.8	1.1	1.6	> 850	19.0	12	30	66
Dryflex SE 50A301	50	1.18	6.0	1.2	1.8	> 850	19.1	18	34	68
Dryflex SE 55A301	55	1.18	6.8	1.3	1.9	> 860	19.3	19	38	68
Dryflex SE 60A301	60	1.18	7.0	1.4	2.0	> 800	19.4	23	41	69
Dryflex SE 65A301	65	1.18	7.1	1.7	2.3	> 800	21.6	25	44	70
Dryflex SE 70A301	70	1.18	8.0	2.0	2.8	> 750	22.7	29	47	70
Dryflex SE 75A301	75	1.18	8.4	2.3	3.0	> 750	24.3	36	48	70
Dryflex SE 80A301	80	1.18	8.8	2.7	3.6	> 750	30.8	37	51	71
Dryflex SE 85A301	85	1.18	9.4	3.0	3.9	> 700	32.0	41	56	71
Dryflex SE 90A301	90	1.18	10.5	3.6	4.6	> 650	38.6	45	60	72

[1] After 15 seconds
[2] Across the flow direction

DRYFLEX SE : SEMI-FILLED SERIES

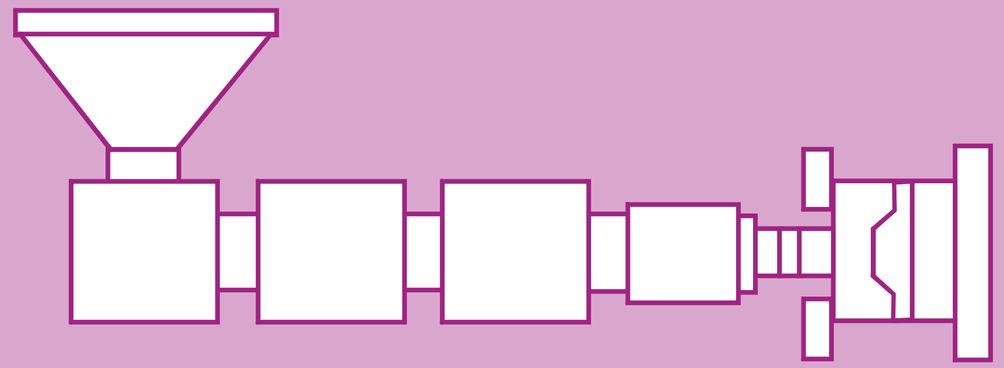
Grade	Hardness[1] ISO 868 Shore A	Density ISO 2781 g/cm3	Tensile Strength[2] ISO 37 Type 1 MPa	Stress at 100% Strain[2] ISO 37 Type 1 MPa	Stress at 300% Strain[2] ISO 37 Type 1 MPa	Elongation at Break[2] ISO 37 Type 1 %	Tear Strength[2] ISO 34-1 Method C N/mm	CS 23°C / 72h ISO 815-1 Type B %	CS 70°C / 22h ISO 815-1 Type B %	CS 100°C / 22h ISO 815-1 Type B %
Dryflex SE 30A201	30	1.00	7.0	0.6	1.1	> 850	17.2	14	28	61
Dryflex SE 35A201	35	1.00	7.5	0.8	1.4	> 850	18.0	14	32	61
Dryflex SE 40A201	40	1.00	7.7	0.9	1.6	> 850	18.8	17	35	62
Dryflex SE 45A201	45	1.00	7.8	1.2	1.9	> 850	19.0	17	36	62
Dryflex SE 50A201	50	1.00	8.2	1.4	2.1	> 850	19.5	18	37	62
Dryflex SE 55A201	55	1.00	8.6	1.5	2.2	> 850	20.1	21	38	62
Dryflex SE 60A201	60	1.00	9.0	1.6	2.4	> 850	21.3	22	40	64
Dryflex SE 65A201	65	1.00	9.3	1.8	2.6	> 850	22.8	24	40	68
Dryflex SE 70A201	70	1.00	9.4	2.4	3.3	> 750	26.3	29	47	68
Dryflex SE 75A201	75	1.00	9.9	2.9	3.8	> 750	29.3	31	48	70
Dryflex SE 80A201	80	1.00	11.3	3.4	4.4	> 750	33.1	37	53	70
Dryflex SE 85A201	85	1.00	12.3	3.7	4.7	> 750	37.4	39	53	74
Dryflex SE 90A201	90	1.00	14.9	4.7	5.9	> 750	47.0	43	60	74

[1] After 15 seconds
[2] Across the flow direction

PROCESSING

Dryflex SE TPE compounds can be processed using standard thermoplastic processing methods, they are optimised for injection moulding.

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	**170 - 190**	**180 - 200**	**190 - 210**	**200 - 220**	**15 - 50**

PROCESSING

Dryflex SE 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.

Temperatures should not exceed 260°C and the compound should only be at elevated temperatures for a short period of time. Care must be taken to allow sufficient cooling of the section prior to demoulding in order to prevent permanent distortion of the article.

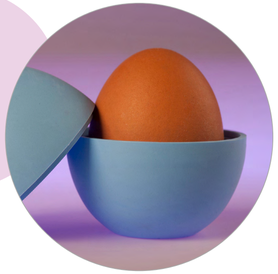
This processing information is intended only as a guide. The actual parameters will depend on the machine used and the moulding being produced.

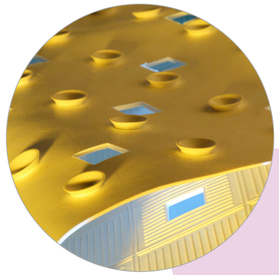
More Processing & Problem Solving Information >

TYPICAL APPLICATIONS

Dryflex SE TPE materials can be used in a wide variety of applications in the **consumer**, **automotive** & **construction** markets, with new applications being introduced every day. Examples include **soft touch grips & handles**, **sealing for packaging**, **sports equipment**, **toys**, **infant care**, **tools** and **automotive** components.






More Dryflex TPE Ranges

Click for more information

Dryflex® 2K

Dryflex® AM

Dryflex® Antimicrobial

Dryflex® C

Dryflex® Circular

Dryflex® CS

Dryflex® DW

Dryflex® Flam

Dryflex® Green

Dryflex® HiF

Dryflex® Interior

Dryflex® PS

Dryflex® T

Dryflex® Touch

Dryflex® TPV

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