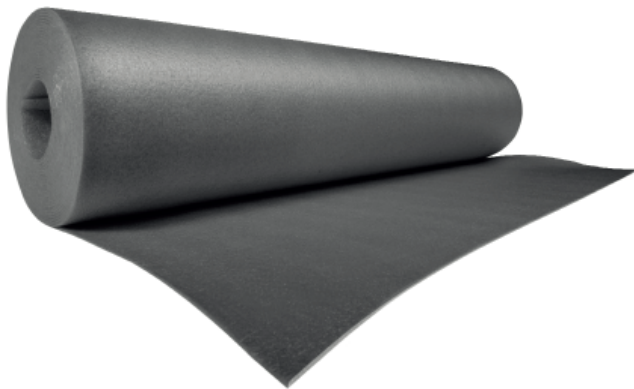


# SABIC FOAM AND LIGHTWEIGHT SOLUTIONS

PORTFOLIO OVERVIEW

# SABIC® LDPE FOAM SOLUTIONS

SABIC® LDPE (Low Density Polyethylene) is designed with characteristics that are determined by customers' requirements for the foaming extrusion process and their applications. A wide range of dedicated foamable LDPE products in the portfolio enables customers to address their main challenges with the best results.



## GENERAL VALUE PROPOSITIONS OF SABIC® LDPE RESIN:

- Quality consistency
- Improved productivity
- Security of supply
- Less scrap and total cost saving

## TYPICAL APPLICATIONS

- Packaging
- Construction
- Automotive
- Footwear, Sports and Leisure



## SABIC SOLUTIONS

- SABIC® LDPE
- SABIC® LDPE UMS (Ultra Melt Strength)

## CHARACTERISTICS

- Good processibility
- Dimensional stability
- Excellent foamability
- High purity
- High melt strength
- Good batch-to-batch consistency

# SABIC® LDPE PRODUCT PORTFOLIO

GRADES	DENSITY	MFR	ANTIBLOCK & SLIP	FOAMING PROCESS
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## SABIC® LDPE UMS - ULTRA MELT STRENGTH

1905U0	919	5.0	no	Extrusion
2202U0	922	1.9	no	Extrusion

## SABIC® LDPE

2004CX3	920	4.6	yes	Extrusion with crosslinking
2102X0	921	1.9	no	Batch ; Extrusion with and without crosslinking
2102X3	921	2.5	yes	Extrusion
2402CX0	924	2.0	no	Batch ; Extrusion with crosslinking
2601X1	926	0.65	yes	Extrusion
2602X1	926	1.5	yes	Extrusion
HP2024JDF	924	2.0	yes	Extrusion
HP2024NDF	924	2.0	no	Batch ; Extrusion with and without crosslinking
HP0824NDF	924	0.8	no	Batch ; Extrusion with and without crosslinking
HP2022NDF	922	2.0	no	Batch ; Extrusion with crosslinking

Typical property	Condition	Standard	Unit
Density		ISO 1183 (A)	kg/m <sup>3</sup>
MFR	190°C, 2.16kg	ISO 1133	dg/min

Typical values only. This document is made available for introductory purposes.  
For more product data we refer to the respective product data sheet (available online or upon request).

# SABIC® POLYSTYRENE FOAM SOLUTIONS

SABIC® EPS (Expandable Polystyrene) and SABIC® PS are designed with characteristics that are determined by our customers' requirements for the foaming process and their applications. The SABIC® EPS foam product portfolio includes both flame retardant and standard grades with a wide bead size range from 0.4 - 0.25mm. The SABIC® PS foam product portfolio includes medium to low MFI PS that enable our customers to address their challenges with outstanding results.



## GENERAL VALUE PROPOSITIONS OF SABIC® EPS AND SABIC® PS RESINS:

- Consistent quality
- Improved productivity
- Security of supply

## TYPICAL APPLICATIONS

- Packaging
- Construction
- Consumer goods

## SABIC SOLUTIONS

- SABIC® EPS
- SABIC® PS
- Excellent foamability

## CHARACTERISTICS

- Good processability
- Good dimensional stability
- Excellent foamability



# SABIC® POLYSTYRENE PRODUCT PORTFOLIO

GRADES	BEAD DIAMETER	DENSITY	APPLICATIONS
<b>SABIC® EPS Standard Grades</b>			
EPS 452	0.4 – 0.8	18 – 35	Fast cycle molding of articles with a wall thickness of less than 10 mm
EPS 552	0.6 – 1.1	17 – 30	Fast cycle shape molding for e.g. boxes and industrial packaging
EPS 652	0.9 – 1.4	16 – 25	Fast cycle, thick wall shape molding, medium/low density molding
EPS 763	1.2 – 2.5	15 – 20	Fast cycle low density block molding

<b>SABIC® EPS Flame Retardant Grades</b>			
EPS 450FF	0.4 – 0.8	18 – 35	Molding of thin-walled (5 – 10 mm) articles
EPS 550FF	0.6 – 1.1	16 – 30	Standard block molding
EPS 650FF	0.9 – 1.4	15 – 25	Medium and low density block molding Thick wall contour shape molding
EPS 760FF	1.2 – 2.5	15 – 20	Fast cycle low density block molding

GRADES	MFR	VICAT	HDT	APPLICATIONS
<b>SABIC® PS GENERAL PURPOSE GRADES</b>				
PS 155	7	102	100	Medium flow GPPS grade for foam extrusion, e.g. insulation boards.
PS 160	3.3	104	100	High molecular weight GPPS grade for foam extrusion, e.g. insulation boards and food packaging

Typical property	Condition	Standard	Unit
Density	One pass pre-expansion	SABIC-020	kg/m <sup>3</sup>
Bead diameter		SABIC-020	mm
MFR	200°C, 5kg	D-1238	dg/min
Vicat		D-1525	°C
HDT		D-648	°C

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# SABIC® PP-UMS FOAM SOLUTION

Close collaboration with our partners in the value chain has enabled SABIC to build up a large bank of knowledge on foaming technologies, and to develop a dedicated, diverse global foam portfolio, applicable in almost all industrial applications. SABIC is adding to this portfolio with SABIC® PP-UMS (Ultra Melt Strength) resin-a completely new generation of high melt strength foamable polypropylenes.

SABIC® PP-UMS HAS A MELT STRENGTH >65 cN, ENABLING AN UNPRECEDENTED LEVEL OF LIGHTWEIGHTING



## TYPICAL APPLICATIONS

- Automotive
- Packaging
- Consumer goods

## GENERAL VALUE PROPOSITIONS OF SABIC® PP-UMS:

- Pure and clean – designed for meeting stringent industry requirements  
Lowest VOC-FOG values
- Thermal and mechanical properties – offers a wide range of foam properties eg. improved compression strength
- Efficient processing – leading to superior foamability  
Lower densities possible
- Unprecedented lightweighting – enabling design and cost optimization  
High melt strength allows blending with different blend partners

## SABIC® PP-UMS PORTFOLIO

GRADES	DENSITY	MFR	MELT STRENGTH	ANTIBLOCK AND SLIP	FOAMING PROCESS
SABIC® PP-UMS					
561P	905	2.5	≥ 65 cN	no	Extrusion
Typical property	Condition	Standard	Unit		
Density		ISO 1183 (A)	kg/m <sup>3</sup>		
MFR	230°C, 2.16kg	ISO 1133	dg/min		

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# FORTIFY™ AND COHERE™ BUILDING BLOCKS FOAM SOLUTIONS

FORTIFY™ & COHERE™ combine the properties of thermoplastics and elastomers. These grades are designed as low density, high performance modifiers to provide superior flexibility, resilience and compression set properties for multiple foam applications. They can be typically used for all types of foam, produced with chemical blowing agents or physical gases, cross-linked and non cross-linked.



## TYPICAL APPLICATIONS

- Footwear
- Sports & Leisure
- Automotive
- Packaging
- Building & Construction

## FORTIFY™ and COHERE™ PRODUCT PORTFOLIO

GRADES	DENSITY	MFR	ANTIBLOCK AND SLIP	FOAMING PROCESS
<b>FORTIFY™</b>				
C1055D	857	1.0	no	Batch; Injection; Extrusion – cross linked and non-cross linked
C05075DF	868	0.5	no	Batch; Injection; Extrusion – cross linked and non-cross linked
C11075DF	868	1.0	no	Batch; Injection; Extrusion – cross linked and non-cross linked
C1085	885	1.0	no	Batch; Injection; Extrusion – cross linked and non-cross linked
C5070D	868	5.0	no	Batch; Injection; Extrusion – cross linked and non-cross linked
<b>COHERE™</b>				
8102	902	1.0	no	Batch; Injection; Extrusion – cross linked and non-cross linked
8402	902	3.5	no	Batch; Injection; Extrusion – cross linked and non-cross linked
Typical property	Condition	Standard	Unit	
Density		ISO 1183 (A)	kg/m <sup>3</sup>	
MFR	190°C, 2.16kg	ISO 1133	dg/min	

Typical values only. This document is made available for introductory purposes. For more product data we refer to the respective product data sheet (available online or upon request).

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