

Halar<sup>®</sup>



**SOLVAY**

asking more from chemistry<sup>®</sup>



**Halar<sup>®</sup> ECTFE**

Release Films

**SPECIALTY  
POLYMERS**

## Halar® ECTFE Release Films

Halar® ECTFE is a semi-crystalline, melt-processable fluoropolymer manufactured by Solvay Specialty Polymers. Release films made from this resin meet industry requirements for use in transfer printing and composites manufacturing.

Halar® ECTFE release films maintain the chemical properties, purity, low surface energy and no outgassing properties typical of standard Halar® ECTFE films. They are available in a wide range of thicknesses, widths and lengths.

## Key features

- Strength, hardness and toughness
- Abrasion and wear resistant
- Good tensile and flexural properties
- Retains mechanical properties up to 180 °C (356 °F)
- Exceptional impact resistance at low temperatures

## Typical properties

Property <sup>(1)</sup>	SI Units		US Customary Units		Test Method
<b>Physical and Thermal Properties</b>					
Density	1.66 – 1.70 g/cm <sup>3</sup>		132 – 135 lb/ft <sup>3</sup>		ASTM D1505
Thickness range	63.5 – 200 µm		2.5 – 8 mil		
Melting point	235 – 240 °C		455 – 464 °F		ASTM D3418
<b>Mechanical Properties</b>					
	MD	TD	MD	TD	
Stress at break, 23 °C (73 °F)	67 MPa	57 MPa	9700 psi	8300 psi	ASTM D882
Elongation at break, 23 °C (73 °F)	145 %	320 %	145 %	320 %	ASTM D882
Modulus, 23 °C (73 °F)	1700 MPa	1400 MPa	245 ksi	200 ksi	ASTM D882
Stress at yield, 23 °C (73 °F)	38 MPa	35 MPa	5500 ksi	5100 ksi	ASTM D882
Elongation at yield, 23 °C (73 °F)	5 %	3 %	5 %	3 %	ASTM D882
<b>Tear Resistance</b>					
	MD	TD	MD	TD	
Tear initiation, 23 °C (73 °F)	185 g	170 g	0.41 lb	0.37 lb	ASTM D1004
Tear propagation, 23 °C (73 °F)	10 N/mm	12 N/mm	1.4 ozf/in	1.7 ozf/in	ASTM D624
<b>Free Shrink</b>					
	MD	TD	MD	TD	
Percent at 130 °C (266 °F)	-6 %	+4 %	-6 %	+4 %	30 min in oven
Percent at 150 °C (302 °F)	-6 %	+3 %	-6 %	+3 %	30 min in oven
Percent at 200 °C (392 °F)	-4 %	+0 %	-4 %	+0 %	30 min in oven

<sup>(1)</sup> Measured on 63.5 µm-thick films



[www.solvay.com](http://www.solvay.com)

[SpecialtyPolymers.EMEA@solvay.com](mailto:SpecialtyPolymers.EMEA@solvay.com) | Europe, Middle East and Africa

[SpecialtyPolymers.Americas@solvay.com](mailto:SpecialtyPolymers.Americas@solvay.com) | Americas

[SpecialtyPolymers.Asia@solvay.com](mailto:SpecialtyPolymers.Asia@solvay.com) | Asia Pacific

Material Safety Data Sheets (MSDS) are available by emailing us or contacting your sales representative. Always consult the appropriate MSDS before using any of our products. Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right. All trademarks and registered trademarks are property of the companies that comprise Solvay Group or their respective owners.

© 2013 Solvay Specialty Polymers. All rights reserved. D 02/2013 | R 09/2013 | Version 1.1

