

## **Quality Product Certification**Separation and Filtration

This product has been found to be fit for use in accordance with NorGeoSpec 2012 System for the function given above.

Certificate no.:	NGS-50269
Date:	01.12.2021
Valid until:	30.11.2023
Manufacturer:	DuPont de Nemours
Product:	SF65
Product Type:	GTX-N
Raw material:	PP
Function:	Separation and Filtration

Issued by

Christian Recker, SINTEF Project Manager

Approved by

Jano Fen Warn

Arnstein Watn, Head of the Technical Committee

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The products are regularly audited and tested to verify that the characteristics fulfil the NorGeoSpec 2012 Rev.: 01/14.12.2016 requirements. Approved by the NorGeoSpec Technical Committee: 01.02.2022



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Quality Product Certification				DoP <sup>1)</sup>	NGS			
Characteristic		Test method	Unit	DoP declared mean value	NGS declared mean value <sup>2)</sup>	NGS max. tolerance <sup>3)</sup>	NGS declared tolerance <sup>4)</sup>	NGS control limits <sup>5)</sup>
Mass per unit area		EN ISO 9864	g/m²	(-)	220	± 22.0	± 22.0	198.0-242.0
Tensile strength	MD	EN ISO 10319	kN/m	16.50	16.50	-1.65	-1.50	≥ 15.00
	CMD	EN ISO 10319	kN/m	16.50	16.50	-1.65	-1.50	
Tensile strain at tensile strength	MD	EN ISO 10319	%	55.0	55.0	-11.0	-11.0	≥ 44.0
	CMD	EN ISO 10319	%	55.0	55.0	-11.0	-11.0	
Static puncture test (CBR test)		EN ISO 12236	kN	2.350	2.350	-0.235	-0.235	≥ 2.115
Dynamic perforation test		EN ISO 13433	mm	25	25	+6.3	+3.0	≤ 28.0
Energy index		NorGeoSpec 2012	kN/m	(-)	3.2		0.0	≥ 3.2
Water permeability normal to the plane, without load		EN ISO 11058	m/s	0.018	0.018	-0.0054	-0.0054	≥ 0.0130
Characteristic opening size		EN ISO 12956	μm	80	80	± 24.0	± 24.0	56.0-104.0
Service life			years	100	100			

<sup>1)</sup> Manufacturer's Declaration of performance acc. hEN standards

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<sup>2)</sup> Manufacturer's declared values

<sup>3)</sup> Max. possible NorGeoSpec tolerance according to table 1 Part 1 and Part 2 of the guideline

<sup>4)</sup> Manufacturer's declared tolerance; the tolerance for the NorGeoSpec certificate shall be equal or less than the "NGS max. tolerance" (see table 1 Part 1 and Part 2 of the guideline)

<sup>5)</sup> NorGeoSpec control limit values regarding fitness for use; these "NGS control limits" are calculated based on the "NGS declared mean values" and the "NGS declared tolerances"; the product has to satisfy these "NGS control limits" during the NorGeoSpec certification process and random product testing