## NorGeoSpec 2012 Product Certificate

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

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

Certificate no.:	NGS-50139
Date:	05.09.2018
Valid until:	04.09.2020
Manufacturer:	Tessilbrenta
Product:	HIPERTEX TB4
Product Type:	GTX-N
Raw material:	PP
Function:	Separation and Filtration

Issued by

Austr- lect

Christian Recker, SINTEF project manager

Approved by



Arnstein Watn, Head of the Technical committee

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: 05.09.2018

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

Characteristic		Standard	Unit	Declared value	Max. tolerance	Certification value
Mass per unit area		EN ISO 9864	g/m²	260	± 26	234 - 286
Mechanical tests				1		
Tensile strength	MD	EN ISO 10319	kN/m	20.60	- 2.00	20.00
	CMD	EN ISO 10319	kN/m	23.70	- 2.30	- 20.00
Tensile strain at tensile strength	MD	EN ISO 10319	%	52.0	- 10.0	42.0
	CMD	EN ISO 10319	%	52.0	- 10.0	- 42.0
Static puncture test		EN ISO 12236	KN	3.200	- 0.320	2.880
Dynamic perforation resistance		EN ISO 13433	mm	18	3	21
Energy index		NorGeoSpec 2012	kN/m	4.5	0.0	4.5
Hydraulic tests						
Permeability normal to the plane without load		EN ISO 11058	m/s	0.035	- 0.010	0.025
Characteristic opening size		EN ISO 12956	μm	70	± 21	49 - 91
Durability (Declared value)						
Service life			years	25	50	100

Quality Product Certification: Separation and Filtration

Application profile:

4