




SINTEF

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	Decimal Places (used on NorGeoSpec certificates)	

1 Introduction

This technical note deals with the decimal places indicated in the NorGeoSpec certificate and the rounding rules applied.

To avoid misunderstandings with reference to the decimal places stated on the NorGeoSpec certificate, information on the decimal places used on the certificate is given below.

The decimal places refer mainly to the specifications of the corresponding test standards. The following decimal places are indicated on the certificate:

Characteristic		Standard	Unit	NGS control limits Decimal places
Product identification				
Mass per unit area		EN ISO 9864	g/m ²	0.0
Tensile elements in ¹	MD	NGS, Annex F	elements/m	0.0
	CMD	NGS, Annex F	elements/m	0.0
Grid apertures in ¹	MD	NGS, Annex F	mm	0.0
	CMD	NGS, Annex F	mm	0.0
Mechanical tests				
Tensile strength ²	MD	EN ISO 10319	kN/m	0.00
	CMD	EN ISO 10319	kN/m	0.00
Elongation at maximum load ²	MD	EN ISO 10319	%	0.0
	CMD	EN ISO 10319	%	0.0



Characteristic		Standard	Unit	NGS control limits Decimal places
Nominal tensile strength ³	MD	EN ISO 10319	kN/m	0.00
	CMD	EN ISO 10319	kN/m	0.00
Tensile strain at nominal tensile strength ³	MD	EN ISO 10319	%	0.0
	CMD	EN ISO 10319	%	0.0
Tensile stiffness at 2/5/10 % tensile strain ³	MD	EN ISO 10319	kN/m	0
	CMD	EN ISO 10319	kN/m	0
Static puncture test (CBR test)		EN ISO 12236	kN	0.000
Dynamic perforation test		EN ISO 13433	mm	0.0
Energy index		NGS, Annex H	kN/m	0.0
Hydraulic tests				
Water permeability normal to the plane, without load (velocity index V_{H50})		EN ISO 11058	l/(m ² ·s)	0.0
Characteristic opening size		EN ISO 12956	µm	0.0
Durability (Declared value)				
Service Life			years	0

2 Rounding rules

The following rounding rules are applied by SINTEF:

- Values are rounded down (left unchanged) if the subsequent digit is less than 5.
- Values are rounded up (increased by 1) if the subsequent digit is 5 or greater.
- To prevent rounding errors in the determination of control limits, and to minimize their impact where unavoidable, control limits are defined with a fixed number of decimal places.
- In cases where rounding leads to disputes in conformity assessment, the decision will be resolved in favour of the applicant.

¹ applicable only for geogrids; definition acc. to EN ISO 10318

² as declared for the functions Separation & Filtration

³ as declared for the function Reinforcement