

# CPA Roads & Traffic Administration Materials Manual

## Geotextile Specifications.

### Fibertex Geotextiles

Fibertex Geotextiles fulfils the latest requirements of the Materials Manual, Volume 2, Chapter 2 – Geotextiles and complies with the values given in Table 2-46 on page 2-69.

#### Grade 1 - Fibertex F-50 alternatively Fibertex F-55

Characteristics	Units	Grade 1	F-50	F-55	TEST method
Penetration load CBR	N	Min. 3800	3900	4400	SANS 10221-07
Puncture resistance	Mm	Max. 14	14	10	EN ISO 13433 1)
Water percolation through flow	l/sec/m <sup>2</sup>	Min. 20	70	70	SANS 10221-07
Mass per Unit Area	g/m <sup>2</sup>	Min. 320	310 2)	340 2)	SANS 10221-07

#### Grade 2 - Fibertex F-34

Characteristics	Units	Grade 2	F-34	TEST method
Penetration load CBR	N	Min. 2400	2500	SANS 10221-07
Puncture resistance	Mm	Max. 26	22	EN ISO 13433 1)
Water percolation through flow	l/sec/m <sup>2</sup>	Min. 20	70	SANS 10221-07
Mass per Unit Area	g/m <sup>2</sup>	-	-	SANS 10221-07

#### Grade 3 - Fibertex F-25

Characteristics	Units	Grade 3	F-25	TEST method
Penetration load CBR	N	Min. 1600	1600	SANS 10221-07
Puncture resistance	Mm	Max. 32	32	EN ISO 13433 1)
Water percolation through flow	l/sec/m <sup>2</sup>	Min. 20	85	SANS 10221-07
Mass per Unit Area	g/m <sup>2</sup>	-	-	SANS 10221-07

Above technical values are mean values based on measurements in current production and test results from independent test institutes.

1) The test method for the Puncture resistance as referred in the CPA Roads & Traffic Administration Branch Materials Manual has the same test parameters as per the EN ISO 13443 test method.

2) Geotextiles can be manufactured from either Polypropylene with a relative density of 0.91 or Polyester with a relative density of 1.36. For equal strength values indicated by the Penetration Load, the performance values of the Puncture Resistance and Water percolation through flow, the mass of the geotextile could then vary by 25%.

The mass of the geotextile has no critical influence within the design and operational requirements of the geotextile. The mass of a geotextile is typically a quality control value utilized by the manufacturer and should be excluded from the grade requirements or alternative be termed as an indicative value.

#### Fibertex Geotextiles

Fibertex Geotextiles are used in building and construction works for separation, filtration, drainage, protection, stabilization and reinforcement.

Fibertex Geotextiles are made of virgin polypropylene fibres added HALS UV stabilizer according to EN 12224.

The basic strength of Fibertex Geotextiles is obtained by needle-punching the PP-fibres, which gives strong elastic bonding between the fibres.

Due to the unique production process all Fibertex Geotextiles are added a thermal treatment unless marked with:

**M:** Needlepunched only

#### Quality Management

Fibertex A/S is certified according to the international quality management system DS/EN ISO 9001 as well as the environmental management system DS/EN ISO 14001.



#### Specifications for Tender

The geotextile should be Fibertex type ....or comparable type.

The material should be needlepunched PP with a penetration load level of ....N, acc. SANS 10221-07, the water throughflow should be .... l/sec/m<sup>2</sup> acc. SANS 10221-07, and the Puncture resistance should be lower than .... mm acc. EN ISO 13433. The geotextile supplier must be certified acc. to ISO 9001 and ISO 14001.

