



## DECLARATION OF CHARACTERISTICS

Number: **MK HQ PP 1000 / 2020 - 1**

Polypropylene needle punched nonwoven geotextile Mokrutex HQ PP

1. **MOKRUTEX HQ PP 1000**

2. Needle punched nonwoven geotextile used for building of motorways, railways, land buildings, building of dams, canals and drainage systems with separation and filtration function (S, F, R, P, D)

3. RETEX a.s.  
U nádraží 894  
672 01 Moravský Krumlov, CZ  
e: geo@retex.cz · i: www.retex.cz

4. ...

5. System for adjudication and verification of building products : **2+**

6.a Textilní zkušební ústav s.p. - notified subjekt 1021 executed initial adjudication of production management system in accordance with system 2+, performs regular witness on the production system and issued certificate No. 1021-CPR - 100 - 1/17

Character	Norm	Unit	Mean value	Tolerance	Harmonic technic norm	
Square weight	EN ISO 9864	g/m <sup>2</sup>	1000	± 10 %	EN 13249:2016	
Strength	MD	EN ISO 10319	kN/m	63	- 3	EN 13250:2016
	CMD	EN ISO 10319	kN/m	93	- 3	EN 13251:2016
Tensibility	MD	EN ISO 10319	%	100	± 20	EN 13252:2016
	CMD	EN ISO 10319	%	100	± 20	EN 13253:2016
Thickness 2 kPa	EN ISO 9863-1	mm	6,3	± 15 %	EN 13254:2016	
Static puncture - CBR test	EN ISO 12236	kN	13	- 1	EN 13255:2016	
Dynamic puncture - cone drop test	EN ISO 13433	mm	0	+ 0	EN 13256:2016	
Determination of the pyramid puncture resistance	EN 14574	N	1320,6	- 60	EN 13257:2016	
Characteristic opening size O <sub>90</sub>	EN ISO 12956	µm	61	± 10	EN 13265:2016	
Determination of water permeability characteristics normal to the plane V <sub>H50</sub>	EN ISO 11058	l/m <sup>2</sup> . s	17,9	- 1,7		
Determination of water flow capacity in their plane - gradient 0.1 / longitudinal direction	20 kPa	EN ISO 12958	l/m <sup>2</sup> . s	1,14 x 10 <sup>-3</sup>	± 15 %	
	100 kPa			6,48 x 10 <sup>-4</sup>		
	200 kPa			3,74 x 10 <sup>-4</sup>		
Determination of water flow capacity in their plane - gradient 0.1 / longitudinal direction	20 kPa	EN ISO 12958	l/m <sup>2</sup> . s	9,83 x 10 <sup>-3</sup>		
	100 kPa			4,53 x 10 <sup>-3</sup>		
	200 kPa			2,53 x 10 <sup>-3</sup>		
Resistance to weather conditions	EN ISO 12224	Must be covered within 1 month after being placed.				
Determination of durability (resistance to oxidation)	MD	EN ISO 13438	90,90%		min 50%	
	CMD		76,40%			
Determination of the long term protection efficiency 300 kPa / 600 kPa / 1200 kPa	EN 13719	%	0.85 1.80 3.74	± 10 %		
Dangerous substances		Less than EU states requirements			Valid national regulations EU states	

It is assumed durable for 100 years in natural soils with 4 < pH < 9 with soil temperature ≤ 25 °C.

8. ...

Characteristics of the above mentioned product are in accordance with complex of declared characteristics. This declaration of characteristics is in accordance with EU directive No. 305/2011 issued in responsibility of producer mentioned above.

Signed by the manufacturer and his name:  
In Moravský Krumlov : 27.5.2020

Ing. Robert Šimek, Ph.D.  
Chairman of the board of directors