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## DECLARATION OF CHARACTERISTICS

Number: **MK HQ PP 180 / 2020 - 1**

Polypropylene needle punched nonwoven geotextile Mokrutex HQ PP

### 1. **MOKRUTEX HQ PP 180**

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

3. RETEX a.s.  
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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>	180	± 10 %	EN 13249:2016
Strength	MD	EN ISO 10319	kN/m	13	- 1	EN 13250:2016
	CMD			13	- 1	EN 13251:2016
Tensibility	MD	EN ISO 10319	%	70	± 20	EN 13252:2016
	CMD			80	± 20	EN 13253:2016
Thickness 2 kPa		EN ISO 9863-1	mm	2,3	± 15 %	EN 13254:2016
Static puncture - CBR test		EN ISO 12236	kN	2,2	- 0.1	EN 13255:2016
Dynamic puncture - cone drop test		EN ISO 13433	mm	11	+ 3	EN 13256:2016
Characteristic opening size D <sub>90</sub>		EN ISO 12956	µm	142	± 15	EN 13257:2016
Determination of water permeability characteristics normal to the plane V <sub>H50</sub>		EN ISO 11058	l/m <sup>2</sup> · s	94,7	- 6	EN 13265:2016
Determination of water flow capacity in their plane - gradient 0.1 / longitudinal direction	20 kPa	EN ISO 12958	l/m <sup>2</sup> · s	6.20 x 10 <sup>-4</sup>	± 15 %	
	100 kPa			0		
	200 kPa			0		
Determination of water flow capacity in their plane - gradient 0.1 / longitudinal direction	20 kPa	EN ISO 12958	l/m <sup>2</sup> · s	8.01 x 10 <sup>-3</sup>	± 15 %	
	100 kPa			2.68 x 10 <sup>-3</sup>		
	200 kPa			5.88 x 10 <sup>-4</sup>		
Resistance to weather conditions		EN ISO 12224	Must be covered within 2 weeks after being placed.			
Determination of durability (resistance to oxidation)	MD	EN ISO 13438	90,90%		min 50%	
	CMD		76,40%			
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 declation 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