EASY WAY TO GREEN ROOF

AQUADESK

Retention and vegetation board

CE

1021 - CPR - 040 / 2018

Characteristics: Thermobonded board for designing of green roof compositions

Material content: Recycled polyester

Certification: The product is certified according to Standard EN 13252:2016

Quality Management System ISO 9001, ISO 14001, ISO and ISO 50001

Follow-up documentation: DoP: AQUADESK 2000 - TL20 - 2018-1 and AQUADESK 3000 - TL30 - 2018-1

Properties:

Function:

Regular use: Retention, drainage and vegetation layers on green roofs.

Material specification sheet

Date of Issue: 01. 01. 2020

No.: N-001-4

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Retention and vegetation board

Technical parameters

		AQUADESK	2000 TL 20	3000 TL 30	4000 TL 40	tolerance
PHYSICAL PROPERTIES						
Mass per unit area / EN ISO 9864		g/m^2	2000	3000	4000	± 15 %
Mass of fully saturated board		kg/m^2	13	22	32	± 15 %
Thickness 0,5 kPa / EN ISO 9073-2		mm	20	30	40	± 15 %
MECHANICAL PROPERTIES						
Compressibility / ČSN EN12431		%	20	20	20	
Tensile strenght / EN ISO 10319	↑	kN/m	0,7	1,3		-0,2
	→		0,6	0,7		-0,2
Dynamic stiffness / ČSN ISO 9052-1		MPa/m	11,5	8,2	7,3	
Dynamic perforation resistance / EN ISO 13433		mm	47	37		+3
HYDRAULIC PROPERTIES						
Maximum water capacity - slope 0°		l/m^2	12	20	29	
Off-flow characteristics		Attachment No. 1				
Characteristic opening size O_{90} / EN ISO 12956		µm	145	132		±15 %
Water permeability (VIh50) / EN ISO 11058		$l/m^2.s$	$4{,}42.10^{-2}$	$3{,}71.10^{-2}$		±20%
Water permeability in the plane (longitudinal direction) / hydraulic slope 0,1 = 5° / EN ISO 12958	0,15 kPa = 15 kg/m²		$3{,}27\cdot10^{-2}$	$2{,}86\cdot10^{-2}$	$4{,}16\cdot10^{-2}$	
	0,50 kPa = 51 kg/m²		$3{,}06\cdot10^{-2}$	$3{,}14\cdot10^{-2}$	$4{,}51\cdot10^{-2}$	
	1 kPa = 102 kg/m²		$2{,}82\cdot10^{-2}$	$3{,}07\cdot10^{-2}$	$4{,}45\cdot10^{-2}$	
	20 kPa = 2,04 t/m²		$6{,}35\cdot10^{-3}$	$1{,}01\cdot10^{-2}$	$1{,}88\cdot10^{-2}$	
	100 kPa = 10,2 t/m²		$7{,}6\cdot10^{-4}$	$1{,}41\cdot10^{-3}$	$2{,}14\cdot10^{-3}$	
	200 kPa = 20,4 t/m²		$3{,}84\cdot10^{-4}$	$5{,}34\cdot10^{-4}$	$1{,}12\cdot10^{-3}$	
Water permeability in the plane (longitudinal direction) / hydraulic slope 1 = 45° / EN ISO 12958	0,15 kPa = 15 kg/m²		$2{,}86\cdot10^{-1}$	$2{,}57\cdot10^{-1}$	$3{,}78\cdot10^{-1}$	
	0,50 kPa = 51 kg/m²		$2{,}77\cdot10^{-1}$	$2{,}99\cdot10^{-1}$	$4{,}31\cdot10^{-1}$	
	1 kPa = 102 kg/m²		$2{,}64\cdot10^{-1}$	$2{,}86\cdot10^{-1}$	$4{,}30\cdot10^{-1}$	
	20 kPa = 2,04 t/m²		$6{,}1\cdot10^{-2}$	$9{,}83\cdot10^{-2}$	$1{,}88\cdot10^{-1}$	
	100 kPa = 10,2 t/m²		$7{,}33\cdot10^{-3}$	$1{,}35\cdot10^{-2}$	$2{,}1210^{-2}$	
	200 kPa = 20,4 t/m²		$3{,}33\cdot10^{-3}$	$5{,}12\cdot10^{-3}$	$9{,}96\cdot10^{-3}$	
INSULATION PROPERTIES						
Thermal conductivity-laboratory humidity / EN 12667		W/m*K	0,038	0,038	0,038	
Thermal conductivity-saturated state / EN 12664		W/m*K	0,142	0,142	0,142	
Sound absorption / ČSN ISO 10534-1		Attachment No. 2				
FIRE CLASSIFICATION						
Reaction to fire EN 13501-1			E	E	E	
CHEMICAL PROPERTIES						
pH reaction			Neutral	Neutral	Neutral	
Properties		Without hazardous chemicals and solvents				
DIMENSIONS						
Delivered format			board	board	board	
Width		cm	60	60	60	± 2 cm
Lenght		cm	120	120	120	± 2 cm
PACKAGING, STORAGE and DISPOSAL						
Pallet dimension		cm	120x120	120x120	120x120	
Number of boards per pallet		ks	200	134	100	
		m^2	144	96,48	72	
Appr. weight of pallet		kg	300	300	300	
Storage		Under roof, in dry places				
Disposal		The product can be recycled				

The data was measured at the laboratories of RETEX a.s., Brno University of Technology and the Textile Institute Brno, and are for informative purpose only.

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