

Data Sheet

Straw Bale Insulation



SonnenKlee
straw

Technical Data	Straw Bales	Test Standard
European Technical Assessment	ETA-10/0032	EAD 040138-01-1201 EAD 040146-00-1201
Constituents	100% cereal straw	-
Bulk density	95-167 kg/m ³	EN 15101-1 respectively: EN 1602
Thermal conductivity fractile value	$\lambda_{10, dry, 90/90} = 0.0444 / 0.0773$ W/mK depending on installation position	EN ISO 10456
Thermal conductivity rated value	$\lambda_D(23/50) = 0.046 / 0.082$ W/mK depending on installation position	EN 12664 / EN 12667, EN ISO 10456
Thermal conductivity design value	$\lambda_r = 0.050 / 0.085$ W/mK depending on installation orientation	ÖNORM B 6015-5
Reaction to fire	Class E according to EN 13501-1:2009	EN ISO 11925-2
Resistance to mould fungi	2	EAD Annex / EAD Annex A
Settlement behaviour under cyclic humidity exposure	-	EN 15101-1, Annex B1
Dimensional stability under temperature and moisture exposure	Length change $\Delta\epsilon_l = 0.8\%$ Width change $\Delta\epsilon_b = 0.7\%$ Thickness change $\Delta\epsilon_d = 0.0\%$	EN 1604
Water vapour diffusion resistance factor	$\mu = 2.3$	EN 12086
Short-term water absorption	$W_{pa} = 7$ kg/m ² at a bulk density of 105 kg/m ³	EN 1609
Corrosion behaviour	Class CR, no corrosion potential detectable	EN 15101-1 EAD Annex E / D
Airflow resistance	$r = 3$ kPa·s/m ² at 100 kg/m ³	EN 29053
Moisture content raw material	< 15%	-
Weed content in straw	< 0.5 wt.%	-
Residual grain content	< 0.4 wt.%	-
Specific heat capacity	2000 J/kg·K	Quelle: FNR – Fachagentur für Nachwachsende Rohstoffe

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