Beltep ROOF 35

Thermal insulation slabs of mineral wool

1020

Specification code: MW-EN13162-T5-DS(70,90)-CS(10)40-TR7,5-PL(5)350-WS-WL(P)-MU1

TECHNICAL SPECIFICATION

Mineral wool for thermal insulation slabs BELTEP is produced on the base of basalt fiber. Its insulating properties are based on the chaotic arrangement of the fibers and the content between a large number of air pores which have a low thermal conductivity. The production is based on defibring method of the minerals composition melt and additional additives and ingredients. The mineral fibres produced are processed into the final slab shape on the production line. The entire fibre surface is hydrophobic. The slabs in the construction have to be protected suitably (vapour-proof foil, separation layers, water-proofing membrane of the flat warm decks).

PACKAGING, TRANSPORT, WAREHOUSING

Insulating slabs are packed on the pallets in height up to 1,40 m. The slabs have to be transported in covered vehicles under conditions preventing their wetting or other degradation. They should be stored flat in sheltered space to maximum layer height of 2,80 m.

APPLICATION

Lower thermal insulating layer of two-layer combined roofs.

UNIQUE FEATURES OF WOOL BELTEP

- EASY INSTALLATION
- SAFETY AND ECOLOGICAL COMPATIBILITY
- THERMAL INSULATION PROPERTIES
- MECHANICAL STRENGTH
- CHEMICAL RESISTANCE
- HYDROPHOBIC PROPERTIES
- FIRE PROPERTIES
- A HIGH LEVEL OF NOISE REDUCTION
- DURABLE IN USE

DIMENSIONS AND PACKAGING

Slabs dimensions, mm			Stacking of packages on a pallet					
length	width	thickness	rows	slabs	height with pallet, m	the volume, m^3	net, kg	gross, kg
		60	21	21	1,38	3,024	378	450
		70	18	18	1,38	3,024	378	450
		80	16	16	1,40	3,072	384	456
		90	14	14	1,38	3,024	378	450
		100	12	12	1,32	2,880	360	432
		110	11	11	1,33	2,904	363	435
		120	10	10	1,32	2,880	360	432
		130	9	9	1,29	2,808	351	423
		140	9	9	1,38	3,024	378	450
		150	8	8	1,32	2,880	360	432
		160	8	8	1,40	3,072	384	456
		170	7	7	1,31	2,856	357	429
		180	7	7	1,38	3,024	378	450

PHYSICAL AND MECHANICAL PROPERTIES

Essential Characteristics	Clauses in this and other European standard(s) related to essential characteristics	Harmonized standard EN 13162:2012+A1:2015	Declared value
Reaction to fire	4.2.6 Reaction to fire	Euroclasses	A1
Thermal resistance	4.2.1 Thermal resistance and thermal conductivity	Thermal conductivity λ (W/mK)	0,036
		Thermal resistance R=d / λ, (m^2K/W)	1,67÷5,00 See table
	4.2.3 Thickness	Thickness range, (mm)	60 - 180
		Ti class for thickness tolerance	T5
Water permeability	4.3.7.1 Short term water absorption	WS - declared W_P, (kg/m^2)	≤ 1
	4.3.7.2 Long term water absorption	WL(P) - declared W_{lp}, (kg/m^2)	≤ 3
Water vapour permeability	4.3.8 Water vapour transmission	Declared MUi	MU1
Compressive strength	4.3.3 Compressive stress or compressive strength	CS(10)i declared (kPa)	≥ 40
	4.3.5 Point load	PL(5)I declared (N)	≥ 350
Durability of thermal resistance against heat, weathering, ageing/degradation	4.2.7 Durability characteristics	DS(70,90) declared The relative changes in thickness	≤ 1
Tensile strength	4.3.4 Tensile strength perpendicular to faces	TRi declared (kPa)	≥ 7.5

Thermal resistance R_D

d, (mm)	60	70	80	90	100	110	120	130	140	150	160	170	180
R_D, (m^2K/W)	1,67	1,94	2,224	2,50	2,78	3,06	3,33	3,61	3,89	4,17	4,44	4,72	5,00

RELATED DOCUMENTS:

- EC compliance certificate 1020 – CPR – 010022606
- Declaration of Performance 0014-DoP-2016/12/01

Natural thermal Insulation
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