

ROADSON

NOISE BARRIERS

DESCRIPTION

Type series of acoustical panels ROADSON is determined for noise barrier constructions, forming a protection barrier against noise from road and railway traffic. Universal steel frame (panel base) includes cement-fibre plate which secures sufficient air soundproof feature of soundproof panel. Single types differ with face side (made from various types of SONIT acoustical elements) and other internal arrangement.

MATERIALS, COLOURS AND SURFACE FINISH

FRAME:

- steel profiles with anticorrosive treatment. Protective systems are selected according the assumed corrosive loading.

NOISE ABSORBING ELEMENTS:

▪ SONIT – elements made of sized silica sand and bond with epoxide composition. The face of wall lining is equipped with silicone enamel protection coat, which is well resistant against atmospheric effect and ultraviolet radiation

▪ Supplementary absorber – boards from hydrofobic mineral felt of a specific mass 75 kg/m³.

SOUNDPROOF ELEMENT:

- cement-fibre boards with appropriate external finish.

DIMENSIONS: basic 3955 × 1265 × 100 mm, optionally non-standard according designers requirements.

WEIGHT: ca 300 kg/piece, acc. to type

OTHER FEATURES:

- weather resistance: -30 to + 60°C, frostproof (50 cycles)

- chemical resistance: withstands diluted solutions of lyes and acids, oil products, chemical defrosting agents

- inflammability: A – non-flammable, A2-s2,d0 according to ČSN EN 13 501-1:2003

DESCRIPTION OF PARTICULAR TYPES AND ACOUSTICS:

1) ROADSON PP20

6 pieces of SONIT PP20 boards (1200 x 650 x 20mm) are inserted into the steel frame. Area between SONIT boards and soundproof element is filled with hydrofobic mineral felt.

Acoustics:	-	noise absorbability	A2	DL _α = 6,3 dB
	-	air soundproof index	B3	DL _R > 25 dB

2) ROADSON P30

SONIT P30 boards (300 x 300 x 30mm) are fixed into the steel frame using "H" profiles. Area between SONIT boards and soundproof element is filled with hydrofobic mineral felt.

Acoustics:	-	noise absorbability	A2	DL _α = 6,2 dB
	-	air soundproof index	B3	DL _R > 25 dB

3) ROADSON PPM 30

To achieve maximal absorbing values, such acoustical system was developed, which uses a number of principles for noise absorption. The face of elements consists of structured slotted soundproof elements from SONIT material. Supplementary absorber (hydrofobic mineral felt) is covered with non woven textiles and protection grill.

Acoustics:

- noise absorbability A4 DL_α = 12,9 dB

- air soundproof index B3 DLR > 25 dB

Note: noise absorbability measured according ČSN ISO354 on samples of panels without bars.

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APPLICATION

Panels are used for noise barrier constructions of “active type”, i.e. not only sound proof towards the protected area, but absorbing noise on the side towards the traffic corridor. Typical examples: road and highway noise barriers, soundproof walls alongside the railway lines and soundproof walls for habitable agglomerations.

INSTALLATION

Vertical steel bars (HEA 140) with axial distance of 4,1m are bearing components of soundproof panels. Bars are founded with use of piles, concrete bells or pad footing, according to the subbase type. Soundproof panels are put in bars from above, using a crane and are fixed with rubber keys.

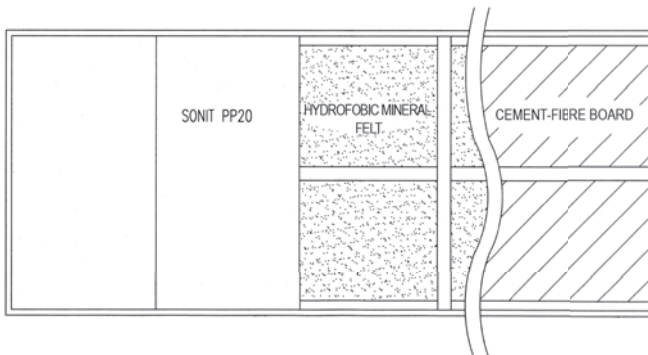
MAINTENANCE

Soundproof panel maintenance must be made yearly at least, after winter season (after end of defrosting agent usage). Soundproof panels must be thoroughly washed with water. In case of hard contamination you may use water solutions of biodegradable detergents and apply them using low-pressure sprayers or soft brushes. Detergent effect on the wall lining colour must be taken into account. After application of such cleaning agents, panels must be rinsed with clean water. Contamination of spray colours (graffiti, etc.), which protrudes deep in the material structure can not be removed completely, not even with antigraffiti systems application.

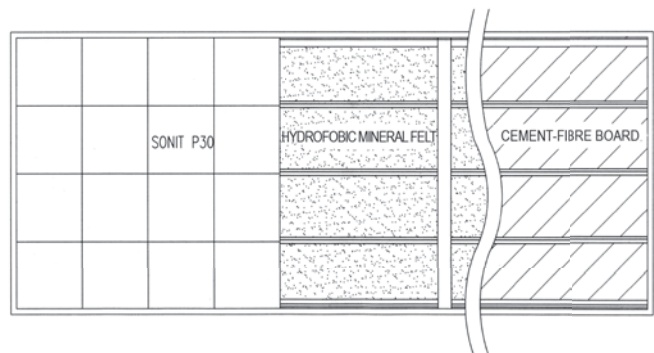
TRANSPORT

Panels are transported vertically.

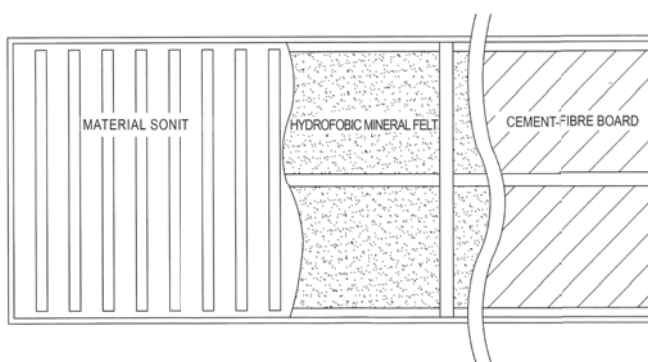
ROADSON PP20



ROADSON P30



ROADSON PPM30



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