

Curtain wall Reynaers CW 60 – Basic

Glazing: Planibel clear 6 mm/ 18A / Stratophone Top N 55.2

The single number ratings of airborne sound reduction $R_w(C,C_{tr})$

Contract no. - 02/00948/13/R48NA

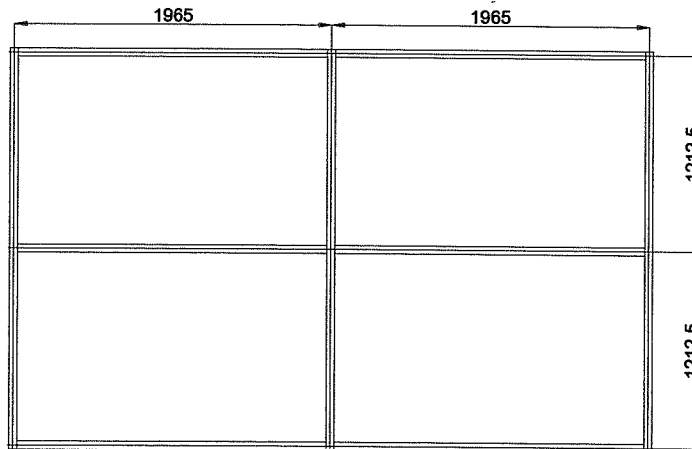
Customer:

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Reynaers Aluminium NV, Oude Liersebaan 266, B-2570 Duffel, Belgium

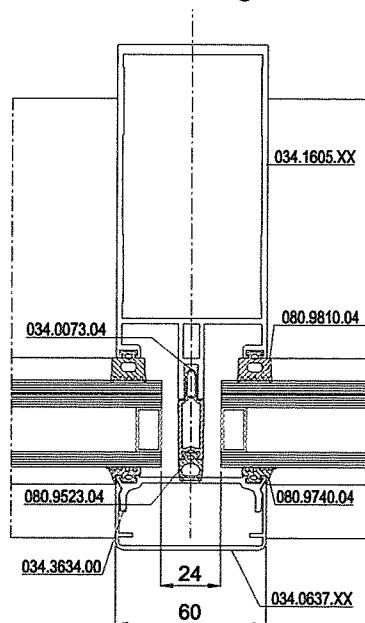
1. Technical details of assessed construction

The object of assessment is a curtain wall sample with the dimensions of $H = 2520$ mm, $S = 4000$ mm, built out of 4 modules with fixed glazing with the dimensions of $1965 \times 1212,5$ mm.

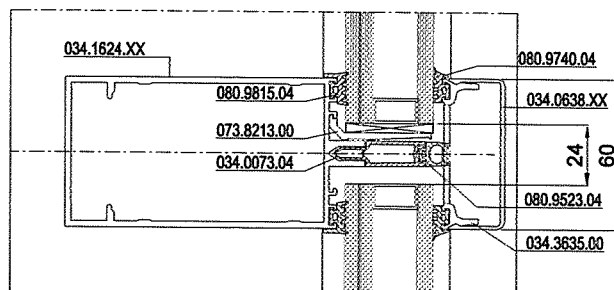


Typical section views through mullion and transom are presented below.

Section view through mullion



Section view through transom



2. Glazing: Planibel clear 6 mm/ 18A / Stratophone Top N 55.2.

The air borne sound reduction index of glazing itself is $R_w(C; C_{tr}) = 40(-2,-7)$ dB

No.	Description	Thickness [mm]	Density ρ [kg/m ³]	Surface mass m'' [kg/m ²]
1.	glass	6	2500	15,0
2.	argon	18	0.002	-
3.	glass	5	2500	12,5
4.	PVB	0,76	1015	0,8
5.	glass	5	2500	12,5
Calculated total thickness = 34,76 mm			Calculated total of the surface mass = 40,8 kg/m ²	

3. Basis for the estimation of the air borne sound reduction index

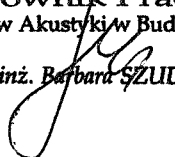
Air borne sound reduction index of a curtain wall built in Reynaers CW60 system – Basic has been estimated based on results of laboratory measurements of a sample of Reynaers CW50 – Classic curtain wall, carried out in Acoustical Laboratory of ITB in 2006 in accordance with PN-EN 20140-3:1999 standard, being equivalent to EN 20140-3:1995 standard.

4. The air born sound reduction index

Sample of Reynaers CW60 - Basic curtain wall, as in p. 1, with Planibel clear 6 mm/ 18A / Stratophone Top N 55.2 glazing (glazing construction see p. 2) has the air borne sound reduction index of:

$$R_w(C, C_{tr}) = 42(-2, -7) \text{ dB}$$

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Warsaw, 19.08.2012