SOUNDBLOX®

SOUND ABSORBING STRUCTURAL MASONRY UNITS

12" RSC/RF4 Masonry Units

Structural Section Properties

Grouted Cores	*Mortar Bedding*	*A (in^2/ft.)*	*I_x (in^4/ft.)*	*$S_{accoustic}$ (in^3/ft)*	*$S_{opp.\ face}$ (in^3/ft)*	*r_x (inches)*	*y (inches)*
None	Faceshell	44.71	1007	158.9	158.5	4.42	5.82
None	Full	63.94	1096	162.7	182.4	3.90	5.48
8" o.c.	Full	118.21	1276	182.5	232.2	3.22	5.12
16" o.c.	Faceshell	85.33	1169	169.8	203.9	3.58	5.28
24" o.c.	Faceshell	72.46	1123	165.3	191.4	3.78	5.39
32" o.c.	Faceshell	67.94	1106	163.9	186.7	3.85	5.43
40" o.c.	Faceshell	65.23	1096	163.1	183.8	3.90	5.46
48" o.c.	Faceshell	59.59	1090	161.5	177.5	4.06	5.54

Notes:

1. A = minimum net cross-sectional area.
2. I_x = moment of inertia based on average net cross-sectional area.
3. $S_{accoustic}$ = section modulus with respect to acoustic face based on minimum net cross sectional area.
4. $S_{opp.\ face}$ = section modulus with respect to non-acoustic face (opposite face) based on minimum net cross sectional area.
5. r_x = radius of gyration based on average net cross sectional area.
6. y = Distance to centroid of cross-section from non-accoustic face of masonry based on minimum net cross-section.
7. Use of minimum versus average net cross section is based on the requirements of ACI 530-95/ASCE 5-95/TMS 402-95, *Building Code Requirements for Masonry Structures*, §5.13.