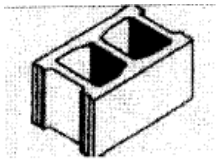
BASALITE®
Concrete Products, ULC

PHYSICAL PROPERTIES OF STANDARD 20cm UNIT CMU

Normal CONFIGURATION	ACTUAL DIMENSIONS (mm)			
		STD	HALF	HALF HIGH
	Width:	190	190	190
	Height:	190	190	90
	Length:	390	190	390

AVAILABLE TYPES		Normal CONFIGURATIONS		NOTES	HOLLOW
CSA Concrete Type Designation		"Four-Facet" System		*1*	H/15/ A,B,C,D /O or M
Dimensions	(mm)	Min. Face Shell Thickness			32
		Min. Web Thickness			26
		Equivalent Thickness			106
Area	(mm^2)	Gross Area		*2*	74100
		Net Area		*3*	41474
Volume	(mm^3)	Gross Volume		*4*	14.079×10^6
		Net Volume		*5*	7.88×10^6
Percent Solid	(%)	Net Volume/Gross Volume			56%
Compressive Strength (minimum)	(MPa)	Average Net Area		*11*	15.0
Unit Mass	(kg)	Normal Weight	CSA "A"	*6*	17.5
		Medium Weight / ASTRO	CSA "B"	*7*	15.0
		Semi-Light Weight	CSA "C"	*8*	15.0
		Light Weight	CSA "D"	*9*	13.4
Wall Mass	(kg/m^2)	Normal Weight	CSA "A"	*10*	250
		Medium Weight / ASTRO	CSA "B"		212
		Semi-Light Weight	CSA "C"		212
		Light Weight	CSA "D"		192
Fire Performance Rating	(hours)	Normal Weight	CSA "A"	*12*	1.5
		Medium Weight / ASTRO	CSA "B"		1.5
		Semi-Light Weight	CSA "C"		1.5
		Light Weight	CSA "D"		2.0

NOTE: Semi light weight CSA "C" and Light weight CSA "D" is not a Basalite stock product. Product manufactured only upon special order.

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20cm UNIT CMU

EXPLANATORY NOTES:

Physical Propoerties of Normal Metric Concretre Sheets

To be used in conjunction with the unit data sheets

NOTE: COMMENT

1. The four-facet system of description is in accordance with CSA.A165.1-14 (reaffirmed 2019). See Notes 6, 7, 8 and 9 regarding compressive strength and concrete densities.
2. Gross area means the area parallel to the bearing surface of the unit including voids. (1)
3. Net area means the gross area cross sectional area minus the area of the voids. (1)
4. Gross volume of the unit is equal to LxHxW using actual dimensions. (2)
5. Net volume of the unit is the gross volume less the volume of all core spaces and voids created by set backs and indentations in the outer surface of the unit. (2)
6. Normal weight units ("A") are defined as having an oven dry density of over 2000 kg/m3 and maximum absorption of 175 kg/m3. The aggregate incorporated is 100% normal weight sand and gravel. In these Tables a density of 2100 kg/m3 has been used. (1)
7. Medium weight/Astro units ("B") are defined as having an oven dry density of between 1800-2000 kg/m^3 and maximum absorption of 200kg/m^3. The units are produced by using various blends of lightweight and normal weight aggregates. A density of 1800 kg/m^3 has been used in these tables. (1)
8. Semi-light weight units ("C") are defined as having an oven dry density of 1700-1800 kg/m^3 and maximum absorption of 225kg/m^3. The units are produced by using various blends of lightweight and normal weight aggregates. A density of 1800 kg/m^3 has been used in these tables. (1)
9. Light weight units ("D") have an oven dry density of less than 1700 kg/m^3. The aggregate can be 100% light weight material of expanded slag, expanded clay, expanded shale or pumice. Light weight units are also produced with aggregates being 20% natural sand and 80% light weight material. In these tables a density of 1700 kg/m^3 has been used. (1)
10. Wall mass totals are estimated and do not include an allowance for grout or reinforcing steel, vertical or horizontal.
11. Minimum compressive strength requirements are based on net area. (1)
12. Fire ratings are based on type of concrete and unit equivalent thickness. Higher ratings held under certification from the Underwriters Laboratories of Canada are available in some areas. For details please refer to the section entitled FIRE/SOUND/THERMAL; in this manual. Fire performance rating data are based on National Building Code of Canada. (3)

Note: Semi light-wt. Category "C" and Light -wt. Category "D" is not a Basalite Stock Product and is only available upon special order.

1) CSA A165-14 and Canadian Concrete Masonry Assiciation (CCMPA) - Metric Technical Manual - Physical Properties
2) CSA A165-14 and Canadian Concrete Masonry Assiciation (CCMPA) - Metric Technical Manual - Physical Properties
3) National Building Code of Canada 2020 (NBC) - Volume 1, Division B, Table D-2.1.1
4) National Concrete Masonry Association - NCMA TEK 13-1C
5) British Columbia Building Code (BBC) 2018