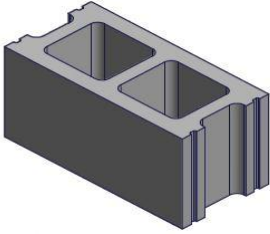


20cm std. CMU (2hr. ULC)

|  | <u>ACTUAL DIMENSIONS (mm)</u> | | |
|---|-------------------------------|------|-----------|
| | STD | HALF | HALF HIGH |
| Width: | 190 | 190 | 190 |
| Height: | 190 | 190 | 90 |
| Length: | 390 | 190 | 390 |

| STANDARD METRIC 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 x 10 ⁶ |
| | Net Volume | 5 | 7.88 x 10 ⁶ |
| Percent Solid (%) | Net Volume/Gross Volume | | 56% |
| Unit Mass (kg) | Normal Weight | CSA "A" 6 | 17.5 |
| | Medium Weight / ASTRO | CSA "B" 7 | 15.0 |
| | Semi-Light Weight | CSA "C" 8 | 13.4 |
| | Light Weight | CSA "D" | |
| Compressive Strength (minimum) (MPa) | Average Net Area | 9 | 15.0 |
| Wall Mass (kg/m ²) | Normal Weight | CSA "A" 10 | 250 |
| | Medium Weight / ASTRO | CSA "B" | 212 |
| | Semi-Light Weight | CSA "C" | 192 |
| | Light Weight | CSA "D" | |
| *Fire Performance Rating (hours) ULC | ULC Fire Rated Block CSA "A" & "B" (ULC Classification D-2) | 11 | 2.0 |
| Sound Transmission Class Rating for Concrete Masonry Walls (STC) | Normal Weight / Medium Weight (Astro) | CSA "A" & "B" 12 | 50 |
| | Semi-Light Weight / Light Weight | CSA "C" & "D" | 46 |

* ULC 2 hour blocks are only manufactured in normal weight CSA "A" and Astro Semi light Wt. CSA "B"

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

PHYSICAL PROPERTIES OF STANDARD
20cm std. CMU (2hr. ULC)

NOTES:

1. The four-facet system of description is in accordance with CSA.A165.1-14 (reaffirmed 2024). See below 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.
3. Net area means the gross area cross sectional area minus the area of the voids.
4. Gross volume of the unit is equal to LxHxW using actual dimensions.
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.
6. Normal weight units ("A") are defined as having an oven dry density of over 2000 kg/m³. The aggregate incorporated is 100% normal weight sand and gravel. In these Tables a density of 2100 kg/m³ has been used.
7. Medium weight/Astro units ("B") are defined as having an oven dry density of between 1800-2000 kg/m³. The units are produced by using a combination of lightweight aggregate and normal weight aggregate. A density of 1800 kg/m³ has been used in these tables.
8. Light weight Units ("D") and Semi-light weight units ("C") are made with type L₂20S concrete where fine portion of aggregate is sand and low density aggregates in which the sand does not exceed 20% of the total volume of all aggregates in the concrete. Semi-light weight units ("C") have an oven dry density of 1700-1800 kg/m³ and Light weight units ("D") have an oven dry density of less than 1700 kg/m³. In these tables a density of 1700 kg/m³ has been used.
9. Minimum compressive strength requirements are based on net area.
10. Wall mass totals are estimated and do not include an allowance for grout or reinforcing steel, vertical or horizontal.
11. Fire performance ratings for ULC-rated blocks are determined according to ULC-S120 Preliminary Standards for Concrete Masonry Units (6). Blocks with a UL 2-hour rating are intended for use in UL Design No. U905, which provides a 2-hour fire resistance classification for walls and partitions.
12. S.T.C. data is taken from CCMPA Table 7.1 Sound Transmission Ratings for Concrete Block Walls.

Reference Standards:

- # Canadian Standard Association: CSA A165-14 (reaffirmed 2024)
- # Canadian Concrete Masonry Association: CCMPA - Metric Technical Manual: Physical Properties
- # National Building Code of Canada 2020: Volume 1, Division B, Appendix D Fire Performance Ratings
- # Canadian Concrete Masonry Association: (CCMPA) - Sound Properties and Design Details
- # Underwriter's Laboratories of Canada: ULC- S120 - Preliminary Standards for Concrete Masonry Units
- # National Concrete Masonry Association - NCMA TEK 13-1C