NOVUM WALL

NOVUM WALL™ RETAINING BLOCK INTERFACE SHEAR DESIGN PARAMETERS

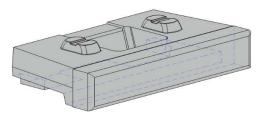
Test Method: ASTM D6916 & NCMA SRWU-2

Tested by: Aster Brands | 10/15-10/25, 2024

INTERFACE SHEAR DATA(a)

| Test No. | Normal Load | | Peak Shear | | Observed Failure |
|----------|-------------|------|------------|------|------------------|
| | lb/ft | kN/m | lb/ft | kN/m | |
| 1 | 117 | 1.7 | 2,247 | 32.8 | Broken Knobs |
| 2 | 1,253 | 18.3 | 4,262 | 62.2 | Broken Knob |
| 3 | 379 | 5.5 | 3,129 | 45.7 | Broken Knobs |
| 4 | 681 | 9.9 | 3,546 | 51.7 | Broken Knob |
| 5 | 967 | 14.1 | 3,955 | 57.7 | Broken Knobs |
| 6 | 1,254 | 18.3 | 4,381 | 63.9 | Broken Knobs |
| 7 | 2,089 | 30.5 | 4,996 | 72.9 | Broken Block |
| 8 | 2,997 | 43.7 | 3,890 | 56.8 | Broken Block |
| 9 | 2,920 | 42.6 | 4,985 | 72.7 | Broken Blocks |
| 10 | 3,759 | 54.9 | 4,027 | 58.8 | Broken Blocks |
| 11 | 1,251 | 18.3 | 4,025 | 58.7 | Broken Block |
| 12 | 5,004 | 73.0 | 3,747 | 54.7 | Broken Blocks |
| 13 | 6,283 | 91.7 | 4,126 | 60.2 | Broken Blocks |

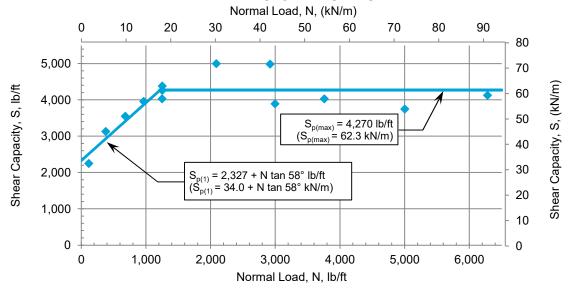
NW-R NOVUM WALL RETAINING BLOCK 0° FACE BATTER



The information contained in this report has been compiled by Aster Brands as a recommendation of peak interface shear capacity. It is accurate to the best of our knowledge as of the date of its issue. However, final determination of the suitability of any design information and the appropriateness of this data for a given design purpose is the sole responsibility of the user. No warranty of performance is expressed or implied by the publishing of the foregoing laboratory test results.

Issue date: 31-MAR-2025

INTERFACE SHEAR CAPACITY



Peak Shear Envelope: (b) $S_p = 2,327 \text{ lb/ft} + N \tan 58^\circ \le 4,270 \text{ lb/ft}$

Inflection Point: N = 1,219 lb/ft (17.8 kN/m) S = 4

S = 4,270 lb/ft (62.3 kN/m)

 $(S_p = 34.0 \text{ kN/m} + \text{N tan } 58^\circ \le 62.3 \text{ kN/m})$

(a) The average 28-day compressive strength of concrete test blocks ranged from 2,866 psi (19.8 MPa) to 3,284 psi (22.6 MPa), with an average of 3,174 psi (21.9 MPa). The average compressive strength at testing date ranged from 3,160 psi (21.8 MPa) to 3,424 psi (23.6 MPa), with an average of 3,310 psi (22.8 MPa). The data reported represents the actual laboratory test results.

(b) The equations for peak shear envelope represent the slope of the trend line of the raw data. The peak shear capacity was selected as an average value of the testing data with normal loads greater than 1,000 lb/ft (14.6 kN/m). No further adjustments have been made. Appropriate factors of safety for design should be added.