

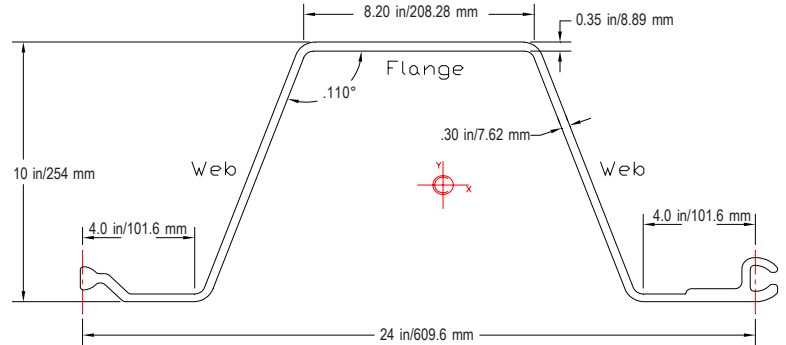
SuperLoc™ 1610 Heavy Duty Data Sheet

(Part Number SS820)

*Wale & Retaining Wall System
(US Patent #6,893,191 B2/May 17, 2005)

Physical Properties

| | |
|-----------------------------------|--|
| Depth of Sheet | 10.00 in. 254 mm |
| Width of Sheet | 24.00 in. 609.6 mm |
| Typical Thickness | 0.30 in. 7.62 mm |
| Weight (wall) | 5.45 psf 26.61 Kg/m ² |
| Weight (single pile) | 10.91 lb/ft. 16.23 kg/m |
| Section Modulus | 18.41 in ³ /ft. 9.9E2 cm ³ /m |
| Moment of Inertia | 101.25 in ⁴ /ft. 1.38E4 cm ⁴ /m |
| Area of the web | 3.00 in ² /ft. of wall 6.35E3 mm ² /m |
| Webs per length of wall | 1.00 webs/ft. 3.281 webs/m |
| Angle of the web | 20° |
| Cross-Sectional Area of the sheet | 13.45 in ² 8677 mm ² |



Note: Values are not factored,
an appropriate safety factor must be applied

CW = Crosswise LW = Lengthwise

| Mechanical Properties | Test Method | Average Values Imperial | Average Values Metric |
|---------------------------------------|--------------------------------------|--------------------------------------|----------------------------------|
| Full Section Modulus of Elasticity | *** Full Section | 4.0E+06 psi | 27,579 MPa |
| Shear Modulus | *** Full Section | 500,000 psi | 3,447 MPa |
| Shear Capacity | *** Calculated | 15,000 lbs./ft. of wall | 22,322 kg/m of wall |
| Web Buckling Capacity from Wale Force | *** Calculated/Full Section Lab Test | 10,600 lbs./ft. of wall ³ | 15,775 kg/m of wall ³ |
| Moment Capacity | | | |
| Connection Flange in Compression | *** Full Section | 33,500 lbs.ft./ft. of wall | 152 kNm/m |
| Connection Flange in Tension | *** Full Section | 46,800 lbs.ft./ft. of wall | 212 kNm/m |
| Average Stress at Failure | | | |
| Connection Flange in Compression | *** Full Section | 21,000 psi | 145 MPa |
| Connection Flange in Tension | *** Full Section | 30,000 psi | 207 MPa |
| Minimum Ultimate Values | | | |
| Specific Gravity | ASTM D-792 | 1.7 | 1.7 |
| IZOD Impact LW | ASTM D-256 | 30 ft.lb./in. notch | 1.601 NM/mm notch |
| IZOD Impact CW | ASTM D-256 | 7 ft.lb./in. notch | .374 NM/mm notch |
| Tensile Strength Flange LW | ASTM D-638 | 75,000 psi | 517 MPa |
| Tensile Strength Flange CW | ASTM D-638 | 20,000 psi | 138 MPa |
| Tensile Modulus Flange LW | ASTM D-638 | 3.80E+06 psi | 26,200 MPa |
| Tensile Modulus Flange CW | ASTM D-638 | 1.6E+06 psi | 11,032 MPa |
| Compression Modulus Flange LW | ASTM D-695 | 3.80E+06 psi | 26,200 MPa |
| Compression Modulus Flange CW | ASTM D-695 | 1.6E+06 psi | 11,032 MPa |
| Compression Modulus Web CW | ASTM D-695 | 2.20E+06 psi | 15,200 MPa |
| Compression Strength of Flange LW | ASTM D-695 | 50,000 psi | 345 MPa |
| Compression Strength of Flange CW | ASTM D-695 | 25,000 psi | 172 MPa |
| Compression Strength Web CW | ASTM D-695 | 25,000 psi | 172 MPa |
| Bearing Strength LW | ASTM D-953 | 50,000 psi | 345 MPa |
| In-Plane Shear LW | ASTM Mod.D2344 ¹ | 7,500 psi | 52 MPa |
| CTE LW | ASTM D-696 | 5.5 (10 ⁻⁶ in/in/°F) | 9.9 (10 ⁻⁶ mm/mm °C) |
| CTE CW | ASTM D-696 | 10.5 (10 ⁻⁶ in/in/°F) | 18.9 (10 ⁻⁶ mm/mm °C) |

1. Follow ASTM D2344, but rotate the coupon 90 degrees (cut section of coupon length faces up)
2. Values are published as ultimate. Appropriate Safety Factors must be applied.
3. Based on 6"-8" (152.4mm - 203.2mm) wide wale sections

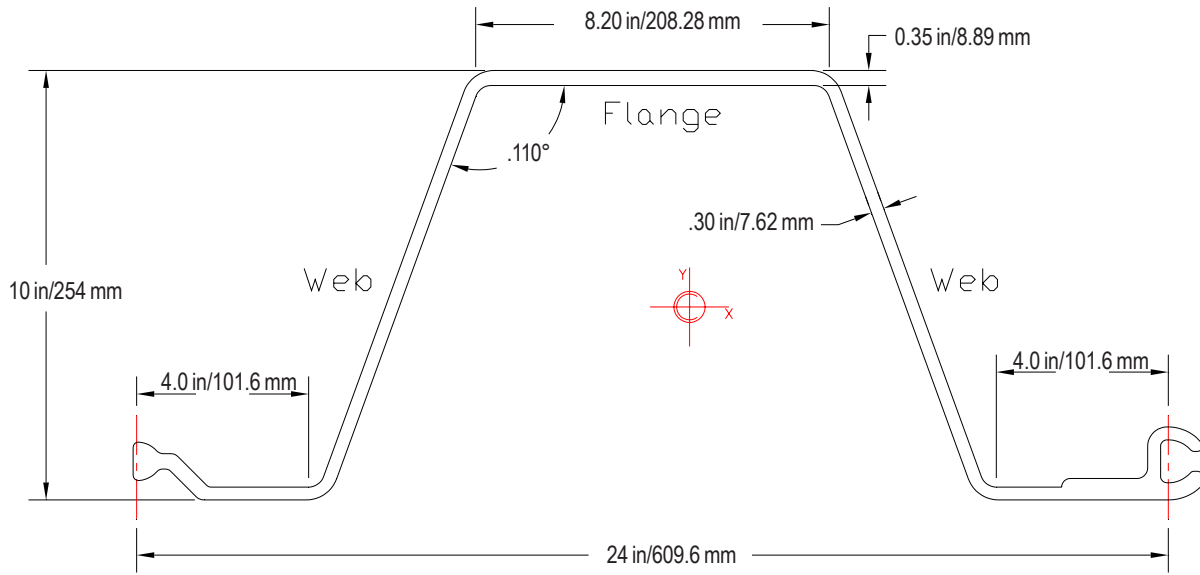
Refer to the SuperLoc™ Design/Installation Manual for Comprehensive Information

**See Back For Detailed Drawing
& Recommended Safety Factors**



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| | Load Type | Factor |
|--------------------------------|---------------------------------|---------------|
| Suggested Safety Factor | Moment | 2.5 |
| Suggested Safety Factor | Shear | 3.0 |
| Suggested Safety Factor | Web Buckling from Wale Force | 2.5 |
| Suggested Safety Factor | Bearing | 2.5 |

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