SRA WEDGE ANCHOR

SPECIFICATIONS

Technical Data Sheet
SRA-M12 316
Stainless Steel Wedge Anchor

Date: 14 February 2025
Reference: 24111305
Attention: Jan Kroupa
Safety Roof Anchors

Benefits

Suitable for cracked and non-cracked concrete

General Information

- **Overall Length**: 125 mm
- **Diameter**: 12 mm
- **Steel Grade**: 316 Stainless Steel
- **Maximum Plate Thickness**: 10 mm
- **Minimum Embedment**: 95 mm
- **Installation Torque**: 50 Nm
- **Minimum Edge Distance**: 150 mm
- **Minimum Fixture Spacing***: 200 mm

* To achieve the maximum capacity of the anchors, a minimum spacing of 300mm is required. If the spacing is less than 300mm, reduction factors must be considered.

Reuse Policy

Reusing these fixtures is strictly not approved. Each fixture is designed for single-use only to maintain structural integrity and safety.

Environmental Conditions

The fixtures are made of 316 stainless steel, which provides excellent corrosion resistance, making them suitable for use in salt-laden environments. However, regular inspection and maintenance are recommended to ensure long-term performance in highly corrosive conditions.

Load Information

The tables below provide detailed information about the performance of these fixtures under static load conditions. These values are not applicable to dynamic or cyclic loading scenarios.

Note: These numbers are valid only for correct setting, a minimum base material thickness of 150 mm, and a minimum 30 MPa concrete capacity.

Table 1: Characteristic Resistance

Test Type	Concrete Strength (MPa)	Peak Load Range (kN)	Mean Capacity (kN)
Basic Tension	27.5 - 30.0	18.78 - 34.75	26.17
Tension with Edge Effects	30.0	25.79 - 41.45	31.89
Shear	27.5 - 28.5	45.84 - 57.32	50.70

Table 2: Allowable Capacity in Non-Cracked Concrete

Test Type	Concrete Strength (MPa)	Allowable Capacity (kN)
Basic Tension	27.5 - 30.0	8.72
Tension with Edge Effects	30.0	10.63
Shear	27.5 - 28.5	16.90

Table 3: Allowable Capacity in Cracked Concrete

Test Type	Concrete Strength (MPa)	Allowable Capacity in Cracked Concrete (kN)
Basic Tension	27.5 - 30.0	6.104
Tension with Edge Effects	30.0	7.441
Shear	27.5 - 28.5	11.830

Table 4: Test Type, Concrete Strength, and Recommended Loads[(a)]

Test Type	Concrete Strength (MPa)	Recommended Loads (kN)
Basic Tension	27.5 - 30.0	4.360
Tension with Edge Effects	30.0	5.315
Shear	27.5 - 28.5	8.450

a) With overall partial safety factor for action to be 1.4, the partial safety factors for action depend on the type of loading and shall be taken from national regulations

Table 5: Allowable capacity for 2 anchors considering 200mm anchor spacing in Non-Cracked Concrete

Test Type	Concrete Strength (MPa)	Allowable Capacity (kN)
Basic Tension	27.5 - 30.0	13.952
Tension with Edge Effects	30.0	17.008
Shear	27.5 - 28.5	27.04

Table 6: Allowable capacity for 2 anchors considering 200mm anchor spacing in Cracked Concrete

Test Type	Concrete Strength (MPa)	Allowable Capacity in Cracked Concrete (kN)
Basic Tension	27.5 - 30.0	9.766
Tension with Edge Effects	30.0	11.9
Shear	27.5 - 28.5	18.928

Table 7: Recommended loads for 2 anchors considering 200mm anchor spacing in Non-Cracked Concrete

Test Type	Concrete Strength (MPa)	Recommended Loads (kN)
Basic Tension	27.5 - 30.0	6.976
Tension with Edge Effects	30.0	8.504
Shear	27.5 - 28.5	13.52

Notes

- The information provided is based on static load testing and is not valid for dynamic or cyclic loading conditions.
- Proper installation as per the provided specifications is essential to achieve the stated performance metrics. Failure to follow the guidelines may result in reduced capacity and potential structural failure.