



SENSE 600[®] Product Guide



InfraBuild's new reinforcing range –

- ↳ reduced mass
- ↳ reduced embodied carbon
- ↳ same structural performance

Deformed reinforcing bar is used in a range of residential, commercial and infrastructure applications.

SENSE 600® PRODUCT RANGE – REINFORCING BAR

SENSE 600®			Equivalent 500N		
Designation	Diameter ¹ (mm)	Nominal kg/m	Designation	Diameter ¹ (mm)	Nominal kg/m
S11	11.0	0.740	N12	12	0.888
S15	14.6	1.32	N16	16	1.58
S18	18.3	2.06	N20	20	2.47
S22	21.9	2.96	N24	24	3.55
S26	25.6	4.03	N28	28	4.83
S29	29.2	5.26	N32	32	6.31
S33	32.9	6.66	N36	36	7.99
S37	36.5	8.22	N40	40	9.86

SENSE 600® is available in a range of bar diameters



We make it easy to identify

SENSE 600[®] is a new range of reinforcing steel with improved sustainability credentials

SENSE 600[®] gives you up to a 39 % reduction in embodied carbon steel solution when you use it in place of our equivalent load capacity 500 MPa product.

The reimagined bar pattern maintains the bar development length and allows the redistribution of material to provide a larger core area for improved buckling performance and tensile capacity all whilst using up to 16.7 % less raw material.

We've made it easy, SENSE 600[®] is CodeMark certified, giving you the assurance that it conforms to AS/NZS 4671: 2019 and compliant for designs to AS 3600: 2018.

Certified sustainability credentials, easy to design, easy to process, easy to handle - it just makes SENSE.



**Innovative bar design
combined with
higher strength**

✓ Supported by CodeMark certification



**Up to 16.7% less
raw material***

✓ Easier to handle



**Lower embodied carbon
construction solution***

✓ Up to 39% reduction in embodied carbon vs standard Grade 500

**Than our standard Grade 500N reinforcing bar*

SENSE 600[®] offers a high degree of material circularity:

SENSE 600[®] is manufactured in Australia by InfraBuild from scrap steel. It has both a high recycled content and a high degree of material circularity, as it is readily recyclable at its end-of-use phase, into new steel products.

The Material Circularity Indicator metric for SENSE 600[®] is included in the SENSE 600[®] EPD.

SENSE 600[®] meets your compliance needs:



- ◇ Compliant for designs to AS 3600: 2018
- ◇ Manufactured to AS/NZS 4671: 2019
- ◇ JAS-ANZ third party accredited
- ◇ Compliant with National Construction Code (NCC) when designed to Australian Standards.
- ◇ GECA Certified, in line with our sustainability focus and credentials

SENSE 600[®] is CodeMark certified for specific applications for ease of substitution.

SENSE 600[®] no change to your weld procedures:

SENSE 600[®] has been developed to conform with the welding requirements of AS/NZS 1554.3. Prequalified Weld Procedure Specifications (WPS) developed for grade 500 reinforcing can be used for the qualification of SENSE 600[®] reinforcing welds.

Preheat and post heat not required for diameters ≤ 40mm. For further information please refer AS/NZS 1554.3, Weld Australia Technical Note 1. Group Number 4 and SENSE 600[®] – Weld Guidelines.

Chemical Analysis %

C	P	Mn
0.33x	0.050x	-

Si	S	CE
-	0.050x	0.49x

x denotes maximum

$$CE = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$

Chemical Formula



High strength steel and innovative bar design

- easy to design
- easy to process
- easy to handle

- it just makes **SENSE**

Characteristics

Mechanical Properties

Yield (MPa)	UTS/YS Ratio Minimum	Uniform Elongation (%) Minimum
600	1.08	5 * Class N

Cold Bending Properties

Nominal Diameter (mm)	Mandral Diameter	Bend Angle	Rebend Angle
$d \leq 16$	4d	90°	90°
$d \geq 16$	4d	180°	NA

Disclaimer:

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It just makes **SENSE**