ENVIROCRETE®

Low carbon concrete for everyday structural performace

ENVIROCRETE® is a dependable low carbon concrete designed for a wide mix of general construction applications.

Using a balanced blend of alternative cementitious materials, ENVIROCRETE® achieves reduced embodied carbon while delivering consistent strength, workability and durability.

It is suited to residential slabs, pathways, footings and non-aggressive environments where reliable performance and sustainability outcomes are both required.



	ENVIROCRETE®	
	ENVIROCRETE 30%	**ENIVROCRETE 40%**
	ENVIROCRETE® is suitable for all general applications where good early age strength and low drying shrinkage are not required.	

Product Details	
	Boral's ENVIROCRETE® concrete is a low carbon concrete product which complies with AS 1379. ENVIROCRETE® contains supplementary cementitious materials to reduce the portland cement content. ENVIROCRETE® concrete is available with two levels of portland cement reduction. ENVIROCRETE® 30% has a minimum portland cement reduction of 30% compared to the GBCA[1] and ISC[2] reference case and ENVIROCRETE® 40% has a minimum portland cement reduction of 40% when compared to the GBCA and ISC reference case. ENVIROCRETE® 30% and 40% are ideal for general applications where high-performance concrete is not required.

	ENVIROCRETE®	
	ENVIROCRETE 30%	**ENIVROCRETE 40%**
Features and Benefits		
	• Low portland cement. • Low embodied carbon. • General applications. • Suitable for projects targeting a GBCA or ISC rating.	
Environmental properties		
Reduction in portland cement[3]	≥ 30%	≥ 40%
Reduction in portland cement[3] (Typical range)	30% - 70%*	
Reduction in embodied carbon[4]	Up to 45%	Up to 50%

* subject to technical review and local availability.

Typical GWP reduction (AUSLCI)[5]		
NSW - Sydney	25.5%	36.2%
VIC - Melbourne	16.2%	25,4%
QLD - Brisbane	19.9%	40.1%
WA - Perth	31.3%	
SA - Adelaide	41.5%	45.8%

Engineering and durability properties		
Early age strength	●	●
Drying shrinkage	●	●
Durability in a marine environment	● ●	● ●
Patented ZEP™ activator	N/A	

Legend: ● Good ●● Very Good ●●● Excellent ●●●● Superior

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Applications		
Standard Mixes - Footpaths, house slab, driveways and others	■ ■ ■	
Piling - All types of piling	■ ■	
Columns - Vertical applications	■ ■ ■	
Wall/Stairs - All wall applications	■ ■ ■	
Blockfill - Blockfill / Corefill	■ ■ ■	
PT Slabs - Post Tension / High early strength	■	
Precast - High early strength	■	
Shotcrete - All shotcrete mixes	■ ■ ■	
Footing - General footing mixes	■ ■ ■	
Colour Mixes - Boral Colori® mixes	■	
Exposed - Exposé® range	■ ■	
Polished - Boralstone® range	■ ■ ■	
Tilt-up - Cast insitu / high early strength	■	
Slipform / Jumpform - High early strength	■	
High Strength - up to 65MPa	■ ■ ■	
Industrial Flooring - Warehouses / Factories	■ ■	
Other Applications	Council Footpaths & General Landscaping Low carbon concrete products for special applications	

Legend: ■ Good ■■ Better ■■■ Best

Compliance	
AS 1379 Specification for Basic Assessment	Complies
Compressive Strength (MPa)	20MPa - 50MPa

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20MPa		
Compressive Strength - 1 day (MPa)	N/A	
Compressive Strength - 7 days (MPa)	~18	
Compressive Strength - 28 days (MPa)	20	
Dry Shrinkage - microstrain (50% RH) - 56 days	<1000	
Nominal Dry Shrinkage - microstrain (50% RH) - 56 days	AS 1379	
Maximum Dry Shrinkage - microstrain (50% RH) - 56 days	AS 1379	
Post tensioned applications (MPa@days) - 22MPa @ days	N/A	
Post tensioned applications (MPa@days) - 25MPa @ days	N/A	
32MPa		
Compressive Strength - 1 day (MPa)	N/A	
Compressive Strength - 7 days (MPa)	~ 22	
Compressive Strength - 28 days (MPa)	32	
Dry Shrinkage - microstrain (50% RH) - 56 days	<1000	
Nominal Dry Shrinkage - microstrain (50% RH) - 56 days	AS 1379	
Maximum Dry Shrinkage - microstrain (50% RH) - 56 days	AS 1379	
Post tensioned applications (MPa@days) - 22MPa @ days	N/A	
Post tensioned applications (MPa@days) - 25MPa @ days	N/A	

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40MPa		
Compressive Strength - 1 day (MPa)	N/A	
Compressive Strength - 7 days (MPa)	~ 28	
Compressive Strength - 28 days (MPa)	40	
Dry Shrinkage - microstrain (50% RH) - 56 days	<1000	
Nominal Dry Shrinkage - microstrain (50% RH) - 56 days	AS 1379	
Maximum Dry Shrinkage - microstrain (50% RH) - 56 days	AS 1379	
Post tensioned applications (MPa@days) - 22MPa @ days	22MPa @ 5 days	N/A
Post tensioned applications (MPa@days) - 25MPa @ days	N/A	
50MPa		
Compressive Strength - 1 day (MPa)	N/A	
Compressive Strength - 7 days (MPa)	~ 38	
Compressive Strength - 28 days (MPa)	50	
Dry Shrinkage - microstrain (50% RH) - 56 days	<1000	
Nominal Dry Shrinkage - microstrain (50% RH) - 56 days	AS 1379	
Maximum Dry Shrinkage - microstrain (50% RH) - 56 days	AS 1379	
Post tensioned applications (MPa@days) - 22MPa @ days	N/A	
Post tensioned applications (MPa@days) - 25MPa @ days	N/A	
>50MPa		
	Contact Boral Technical for more information	

	ENVIROCRETE®	
	ENVIROCRETE 30%	**ENIVROCRETE 40%**
Content Declaration (% by Weight) - NSW (Refer to EPD for TfNSW & Special applications)		
General purpose cement	7–18%	
Ground granulated blast furnace slag	0–4%	
Fly ash	2–5%	
Silica fume	-	
Coarse aggregate	38–50%	
Manufactured sand	8–38%	
Natural sand	0–38%	
Admixtures	<0.15%	
Steel Fibres	-	
Water	6–9%	
Concrete Mixes (Covered by EPD - NSW)		
Low carbon concrete products for special applications	• ENVIROCRETE® 30% 20MPa • ENVIROCRETE® 30% 25MPa • ENVIROCRETE® 30% 32MPa • ENVIROCRETE® 30% 40MPa • ENVIROCRETE® 30% 50MPa	• ENVIROCRETE® 40% 20MPa • ENVIROCRETE® 40% 25MPa • ENVIROCRETE® 40% 32MPa • ENVIROCRETE® 40% 40MPa • ENVIROCRETE® 40% 50MPa
Concrete products for special applications	-	-
Fibrecrete products	• ENVIROCRETE® 30% 32MPa 20KG STEEL FIBRE • ENVIROCRETE® 30% 40MPa 20KG STEEL FIBRE • ENVIROCRETE® 30% 50MPa 20KG STEEL FIBRE • ENVIOCRETE® 30% 32MPa 25KG STEEL FIBRE • ENVIROCRETE® 30% 40MPa 25KG STEEL FIBRE • ENVIROCRETE® 30% 50MPa 25KG STEEL FIBRE • ENVIROCRETE® 30% 32MPa 30KG STEEL FIBRE • ENVIROCRETE® 30% 40MPa 30KG STEEL FIBRE • ENVIROCRETE® 30% 50MPa 30KG STEEL FIBRE	

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Content Declaration (% by weight) - VIC		
General purpose cement	6–18%	
Ground granulated blast furnace slag	0-13%	
Fly ash	0-13%	
Silica fume	–	
Coarse aggregate	40–50%	
Manufactured sand	0–20%	
Natural sand	22–41%	
Admixtures	<0.2%	
Steel Fibres	–	
Water	6–9%	
Concrete Mixes (Covered by EPD - VIC)		
Low carbon concrete products	• ENVIROCRETE® 30% 20MPa • ENVIROCRETE® 30% 25MPa • ENVIROCRETE® 30% 32MPa • ENVIROCRETE® 30% 40MPa • ENVIROCRETE® 30% 50MPa	• ENVIROCRETE® 40% 20MPa • ENVIROCRETE® 40% 25MPa • ENVIROCRETE® 40% 32MPa • ENVIROCRETE® 40% 40MPa • ENVIROCRETE® 40% 50MPa
Low concrete products for special applications		• ENVIROCRETE® 20MPa - 40% SCM • ENVIROCRETE® 25MPa - 40% SCM
Fibrecrete products	• ENVIROCRETE® TUNNEL BACKFILL • ENVIROCRETE® TUNNEL BACKFILL EXT PUMP • ENVIROCRETE® KERB MACHINE 320KG/M_3 • ENVIROCRETE® KERB MACHINE 280KG/M^3 • ENVIROCRETE® VR450 14MM DWALL • ENVIROCRETE® VR400 14MM IN SITU TUNNEL LINING • ENVIROCRETE® VR450 14MM IN SITU TUNNEL LINING • ENVIROCRETE® 32MPa - 65% SCM	

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Content Declaration (% by weight) - QLD		
General purpose cement	7-16%	4-12%
Ground granulated blast furnace slag	-	2-7%
Fly ash	2-6%	1-5%
Silica fume	-	-
Coarse aggregate	38-50%	38-50%
Manufactured sand	0-22%	0-23%
Natural sand	12-40%	10-40%
Admixtures	<0.15%	<0.25%
Steel Fibres	-	-
Water	6-9%	6-9%
Concrete Mixes (Covered by EPD - QLD)		
Low carbon concrete products for special applications	• ENVIROCRETE® 30% 20MPa • ENVIROCRETE® 30% 25MPa • ENVIROCRETE® 30% 32MPa • ENVIROCRETE® 30% 40MPa • ENVIROCRETE® 30% 50MPa	• ENVIROCRETE® 40% 20MPa • ENVIROCRETE® 40% 25MPa • ENVIROCRETE® 40% 32MPa • ENVIROCRETE® 40% 40MPa • ENVIROCRETE® 40% 50MPa
Content Declaration (% by weight) - SA		
General purpose cement	6-14%	
Ground granulated blast furnace slag	3-8%	
Fly ash	-	
Silica fume	-	
Coarse aggregate	40-42%	
Manufactured sand	9-13%	
Natural sand	23-29%	
Admixtures	<0.2%	
Steel Fibres	-	
Water	7-8%	

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Concrete Mixes (Covered by EPD - SA)		
Low carbon concrete products for special applications	• ENVIROCRETE® 30% 20MPa • ENVIROCRETE® 30% 25MPa • ENVIROCRETE® 30% 32MPa • ENVIROCRETE® 30% 40MPa • ENVIROCRETE® 30% 50MPa	• ENVIROCRETE® 40% 20MPa • ENVIROCRETE® 40% 25MPa • ENVIROCRETE® 40% 32MPa • ENVIROCRETE® 40% 40MPa • ENVIROCRETE® 40% 50MPa

Content Declaration (% by weight) - WA Perth Region LOW CARBON CONCRETE PRODUCTS	
General purpose cement	4-15%
Ground granulated blast furnace slag	4-13%
Silica fume	0%
Coarse aggregate	38-46%
Manufactured sand	7-13%
Natural sand	0-32%
Admixtures	<0.7%
Steel Fibres	0%
Water	7-8%

Concrete Mixes (Covered by EPD - WA Perth Region)	
Low carbon concrete products for special applications	• ENVIROCRETE® 20MPa • ENVIROCRETE® 25MPa • ENVIROCRETE® 32MPa • ENVIROCRETE® 40MPa • ENVIROCRETE® 50MPa • ENVIROCRETE® 65MPa

Content Declaration (% by weight) - WA Perth Region LOW CARBON CONCRETE PRODUCTS - FOR SPECIAL APPLICATIONS	
General purpose cement	1-40%
Ground granulated blast furnace slag	0-27%
Silica fume	<3%
Coarse aggregate	0-46%
Manufactured sand	4-53%
Natural sand	7-37%
Admixtures	<0.7%
Steel Fibres	0%
Water	6-35%

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Concrete Mixes (Covered by EPD - WA Perth Region)		
Low carbon concrete products for special applications	• ENVIROCRETE® 50 MPa GB • ENVIROCRETE® PT 50 MPa 22 MPa@4DAYS • ENVIROCRETE® 65 MPa LH • ENVIROCRETE® 65 MPa GB • ENVIROCRETE® 65 MPa MCC:460 • ENVIROCRETE® 65 MPa MCC:350 • ENVIROCRETE® 80 MPa • ENVIROCRETE® 80 MPa SWC • ENVIROCRETE® 100 MPa • ENVIROCRETE® 40 MPa 10mm TREMIE LH • ENVIROCRETE® 40 MPa 10mm TREMIE GB • ENVIROCRETE® CEMENT SLURRY@1100kg/m^3 • MRWA ENVIROCRETE® 40 MPa LH MCC:400 • MRWA ENVIROCRETE® 50 MPa LH MCC:420 • ENVIROCRETE® 3% STABILISED SAND • ENVIROCRETE® 4% STABILISED SAND • ENVIROCRETE® 6% STABILISED SAND • ENVIROCRETE® 8% STABILISED SAND • ENVIROCRETE® 10% STABILISED SAND • ENVIROCRETE® 12% STABILISED SAND • ENVIROCRETE® 15% STABILISED SAND • ENVIROCRETE® 20% STABILISED SAND	

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Content Declaration (% by weight) - NT		
Density	2,330-2,380 kg/m³ (Special Applications 2,220-2,400 kg/m³)	
General purpose cement	8-13% (Special Applications 7-15%)	
Ground granulated blast furnace slag	3-9% (Special Applications 3-11%)	
Fly ash	-	
Silica fume	(Special Applications 0.1%)	
Coarse aggregate	40-45% (Special Applications 0-50%)	
Manufactured sand	15-25% (Special Applications 10-30%)	
Natural sand	10-20% (Special Applications 5-45%)	
Admixtures	<0.2% (Special Applications <0.2%)	
Steel Fibres	-	
Water	7% (Special Applications 7-11%)	
Concrete Mixes (Covered by EPD -NT)		
Low carbon concrete products	• ENVIROCRETE® 20MPa • ENVIROCRETE® 25MPa • ENVIROCRETE® 32MPa • ENVIROCRETE® 40MPa • ENVIROCRETE® 50MPa • ENVIROCRETE® 65MPa	
Low carbon concrete products for special applications	• ENVIROCRETE® SPECIAL CLASS 15 MPa • ENVIROCRETE® BLOCKFILL 20 MPa • ENVIROCRETE® BLOCKFILL 25 MPa • ENVIROCRETE® BLOCKFILL 32 MPa • ENVIROCRETE® EASY PLACE 20 MPa • ENVIROCRETE® EASY PLACE 25 MPa • ENVIROCRETE® EASY PLACE 32 MPa • ENVIROCRETE® EASY PLACE 40 MPa • ENVIROCRETE® HIGH SLUMP 50 MPa • ENVIROCRETE® HIGH SLUMP 65 MPa • ENVIROCRETE® TREMIE 40 MPa • ENVIROCRETE® TREMIE 50 MPa • ENVIROCRETE® KERB MACHINE 320kg/m³ • ENVIROCRETE® GROUT 400kg/m³ • ENVIROCRETE® SHOTCRETE 32 MPa	

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Content Declaration (% by weight) - TAS		
	Contact Boral Technical Services for information	
Concrete Mixes (Covered by EPD -TAS)		
	Contact Boral Technical Services for information	

[1] Green Building Council of Australia (GBCA).
[2] Infrastructure Sustainability Council (ISC).
[3] Using the reference case from the GBCA Design and As-Built v1.3 rating tool.
[4] Using a reference case calculated from the GBCA upfront embodied carbon emissions calculator for concrete with GP cement.
[5] Minimum GWP reduction compared to AusLCI (v47) 0% SCM reference case for equivalent strenth grade.

CONTACT BORAL'S CONCRETE TEAM 1300 267 251

The information in this product sheet and any advice given should be viewed as a guide only. Boral recommends obtaining technical advice prior to construction. To ensure the information you are using is current, Boral recommends you review the latest building information available on the Boral website.

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