



Revised: April 12, 2018

ORCA WASHED GRAVEL 1/2" x No.4 (12.5 x 4.75mm)

The Orca concrete aggregates are produced at the Orca Quarry, Port McNeill, B.C., in a modern and efficient washing and processing plant opened in March 2007 and distributed via ocean-going ships or barges.

The California Department of Transportation has established that aggregates from this source are innocuous with respect to Alkali Silica Reactivity and has approved them for use in reduced mineral admixture concrete.

Caltrans # 13-Can-02

(http://www.dot.ca.gov/hq/esc/approved_products_list/pdf/aggregate_for_concrete.pdf)

GRADATION – PERCENTAGE PASSING

SIEVE SIZE	ORCA GRAVEL (Typical Values)	SPECIFICATIONS	
		CALTRANS Per: 90-1.02C(4) (2010)	ASTM C33-03 Type 7
19.0 mm (3/4")	100	100	100
12.5 mm (1/2")	95	82 – 100	90 – 100
9.5 mm (3/8")	68 X = 60	45 – 75 X ± 15	40 – 70
4.75 mm (#4)	9	0 – 15	0 – 15
2.36 mm (#8)	3	0 – 6	0 – 5

TYPICAL PROPERTIES

	TEST	ORCA	SPECIFICATIONS	
			CALTRANS	ASTM
Specific Gravity, bulk SSD	CT 206	2.89		
Absorption	CT 206	0.7		
Dry Rodded Unit Weight, pcf	CT 212	111		
Cleanness Value	CT 227	91	75 Min.	
Durability	CT 229	89		
Sodium Sulfate Soundness	C-214	<1%	10% Max.	12% Max.
Magnesium Sulfate Soundness	C-88	<1%		18% Max.
Los Angeles Abrasion (500 Revs)	C-131	11%	45% Max.	50% Max.
Materials Finer Than No. 200	C-117	<0.5%		1.0% Max.
Lightweight Pieces (Coal or Lignite)	C-123	0.0%		0.5% Max.
Lightweight Pieces (Chert & Shale)	C-123	0.1%		5.0% Max.
Clay Lumps and Friable Particles	C-142	0.0%		5.0% Max.
Alkali Silica Reactivity	C-1567	Innocuous	0.15% Max.	0.10% Max.
Alkali Silica Reactivity	C-1293	Innocuous	0.04% Max.	0.04% Max.

Special Notes*

1) **This material carries an Environmental Product Declaration**

This declaration has been prepared in accordance with ISO 14025, ISO 21930, and ASTM International's EPD program operator rules.



Index List (<https://www.astm.org/CERTIFICATION/EpdAndPCRs.html>)

Specific EPD (https://www.astm.org/CERTIFICATION/DOCS/344.EPD_Polaris_Materials_final.pdf)

2) **This product is recognized by NSF International**

This product complies with NSF/ANSI 61, 372 and all other applicable requirements



A handwritten signature in black ink, appearing to read 'S. Dryden'.

Scott Dryden

President & CEO

Orca Sand & Gravel Ltd.