

Certificate of Analysis & Certificate of Conformity



1555 Main Street, Indianapolis, IN 46224

Product Name: CRO-197

Customer:

Ship Date:

Praxair Spec: ZCRO197-00BK

Shipping Order #:

Printed Date: 04/DEC/2016

Item Number

Customer PO #:

Lot Number: 13

Quantity:

UM:

All elements measured in weight percent unless otherwise specified. Sampling Method per ASTM B215.

Blend Weights

Component	Lot #	Lot %	Comp %	Min	Max	Nominal	OK
CRO-167	172	70	70	69	71		Yes
Al-1010-HP	25	30	30	29	31		Yes

Chemistry

Chemistry	Test Method	Test Lab	Min	Max	Result	OK
Al-1010-HP,Aluminum Oxide	By Difference	NSL Analytical Services	98.00		99.96	Yes
Al-1010-HP,Calcium Oxide	DC ARC	NSL Analytical Services		1.00	0.04	Yes
Al-1010-HP,Sodium Oxide	DC ARC	NSL Analytical Services		1.00	0.17	Yes
Al-1010-HP,Silicon Dioxide	DC ARC	NSL Analytical Services		2.00	0.13	Yes
CRO-167,Aluminum	XRF	Praxair		0.20	0.03	Yes
CRO-167,Calcium	XRF	Praxair		0.05	0.01	Yes
CRO-167,Chromium Oxide	By Difference	Praxair	99.0		99.9	Yes
CRO-167,Iron	XRF	Praxair		0.10	0.01	Yes
CRO-167,Magnesium	XRF	Praxair		0.10	0.01	Yes
CRO-167,Silicon	XRF	Praxair		0.10	0.01	Yes
CRO-167,Total All Other	XRF	Praxair		0.50	0.01	Yes
CRO-167,Vanadium	XRF	Praxair		0.10	0.02	Yes

ICP

ICP	Test Method	Test Lab	Min	Max	Result	OK
CRO-167,Water Soluble Cr	ICP	Praxair		0.10	0.00	Yes

Microtrac

Microtrac	Test Method	Test Lab	Min	Max	Result	OK
CRO-167,-11	Microtrac	Praxair		20	17	Yes
CRO-167,-16	Microtrac	Praxair	30	40	33	Yes
CRO-167,-5.5	Microtrac	Praxair		3	3	Yes

PST: 119919

C-84884

Spec ranges shown above in italics are target or nominal specifications only.

* indicates test is not required for routine acceptance.



(317) 240-2650
Telefax (317) 240-2225
Toll-Free Telefax 1-800-234-6738 U.S.A

AS9100 Registered
Quality System

Materials Testing Laboratory

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Estimated uncertainty of measurement is available upon request.

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Sieve per ASTM B214	Test Method	Test Lab	Min	Max	Result	OK
AI-1010-HP,-325	ASTM B214	Praxair	99		99	Yes
CRO-167,-270	ASTM B214	Praxair	100		100	Yes
CRO-167,-325	ASTM B214	Praxair	99.5		99.8	Yes
CRO-167,-400	ASTM B214	Praxair	96		97	Yes

PLI INFORMATION:

The materials meets the following requirements:

CERT COMMENTS:

LOT COMMENTS:

PRAXAIR SURFACE TECH VENDOR #90506

COMMENTS:

DAR Date:

Marina Berezhnev
Chemist

Statement of Conformity

Praxair Surface Technology certifies that processing, product testing, and inspection control of raw material and formulating procedures are in conformance with all applicable specifications, drawings, and/or standards. Complete test reports as required are on file. Powders do not have a shelf life & the expiration date of slurries is listed in the header above. Document validated per electronic signature.

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