

Application Data: Chemical Industry (Batteries)

Computrac® Vapor Pro® Moisture Specific Analyzer

Green Karl Fischer Alternative

MATERIAL	RESULT	COMPUTRAC®	STATISTIC	OVEN/KARL FISCHER
Battery Component	ppm Moisture	1857	Mean	1792
		30	Standard Deviation	Customer provided value
Lithium-based Battery	ppm Moisture	620	Mean	623
		20	Standard Deviation	10
Anode Electrode	ppm Moisture	152.8	Mean	145.4
		21.1	Standard Deviation	33.1
Cathode Powder	ppm Moisture	200	Mean	183
		15.7	Standard Deviation	19.4
Cathode Powder	ppm Moisture	377	Mean	397.7
		2.5	Standard Deviation	22.9
Cathode Material	ppm Moisture	2248	Mean	2260
		210	Standard Deviation	340
Lithium-based Cathode Material	ppm Moisture	2196	Mean	2159
		80	Standard Deviation	120

Computrac® MAX® 1000/MAX® 2000XL Moisture/Solids Analyzers

Battery Paste, Wet	% Moisture	2.99	Mean	3.045
		0.047	Standard Deviation	0.017
		3 – 4 minutes	Test Time	16 hours
Battery Paste, Dry	% Moisture	2.12	Mean	2.072
		0.024	Standard Deviation	0.009
		3 minutes	Test Time	16 hours
Cathode Powder	% Moisture	7.41	Mean	7.465
		0.024	Standard Deviation	0.132
		5 – 6 minutes	Test Time	8 minutes
Cathode	% Moisture	0.097	Mean	0.095
		0.008	Standard Deviation	0.008
		2 minutes	Test Time	5 minutes
Vanadium-based Cathode Material	% Moisture	0.543	Mean	0.524
		0.003	Standard Deviation	0.004
		3 minutes	Test Time	10 minutes
Manganese-based Cathode Powder	% Moisture	5.768	Mean	5.736
		0.027	Standard Deviation	0.034
		5 minutes	Test Time	16 hours



ARIZONA INSTRUMENT LLC

3375 N. Delaware Street, Chandler, AZ 85225 • (602) 470-1414 • (800) 528-7411 • www.azic.com

Exclusive Manufacturer of Computrac® Moisture Analyzers and Jerome® Toxic Gas Analyzers