



REPORT

CUSTOMER PO NO.:
ALS THAILAND REF NO.: ATT/ELP/13/1701-L
DATE: 14 June 2013
COMPANY: Enpro Products (Thailand) Co., Ltd.
101/47/18 Moo 20 T.Klong Nueng, A. Klong Lang
Pathumtani 12120

DATE SAMPLE RECEIVED: 07 June 2013
DATE ANALYZED: 13 June 2013
DATE TEST COMPLETED: 13 June 2013

SAMPLE DESCRIPTION: One lot of sample was received with references:
Description: Anti Disk
Model: Tahoe 2D
Surface Area: 14074 mm²
Remark: No U/S

METHOD/PROCEDURE:

Test	Procedure No	Number of pieces used for extraction	Extraction Medium	Extraction Volume
LPC	92-004230 Rev AJ	1 per run	0.1um Filtered Degassed DI Water	2000mL

Results:

The specification is based on Western Digital's document no.96-004575 Rev AU for Antidisk (3.5 Inch Enterprise)

Required Test	Particle Bin Size (um)	Specification Limits (particles/sqcm)	Average of 5 data points (particles/sqcm)	Pass / Fail
LPC	≥ 0.3	<3000	21,063	Fail
LPC	≥ 0.5	NA	7,265	NA

Test Method: 92-004230 Rev AJ 92-004134 Rev CD (For Tray Use)	
Surface Area, cm ²	140.7400
Extraction Vol, ml	2000.0000
Sample Vol, ml	10.0000
No. of Parts	1.0000

Tank Conditions	Tank Volume	Sonication Freq.	Ultrasonic Power
	20.2 L	68 kHz	4.8 W/L



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Run	Accumulative Size (µm)	Blank (Counts/ml)	Sample (Counts/ml)	Blank-corrected (Counts/part)	Blank-corrected (Counts/cm²)
1	0.3	2.17	1219.87	2435407	17304
	0.5	0.43	418.20	835533	5937
	0.7	0.27	225.17	449801	3196
	1.0	0.13	147.77	295267	2098
	2.0	0.00	32.10	64200	456
2	0.3	1.13	1333.47	2664673	18933
	0.5	0.07	470.70	941267	6688
	0.7	0.00	263.63	527266	3746
	1.0	0.00	172.23	344466	2448
	2.0	0.00	38.83	77667	552
3	0.3	1.23	1778.57	3554673	25257
	0.5	0.03	733.83	1467599	10428
	0.7	0.03	449.87	899667	6392
	1.0	0.00	314.67	629334	4472
	2.0	0.00	75.10	150200	1067
4	0.3	2.57	1503.33	3001527	21327
	0.5	0.40	463.50	926200	6581
	0.7	0.13	259.93	519599	3692
	1.0	0.07	171.67	343201	2439
	2.0	0.03	38.97	77867	553
5	0.3	1.70	1584.47	3165540	22492
	0.5	0.20	471.23	942066	6694
	0.7	0.07	259.67	519201	3689
	1.0	0.07	168.07	336001	2387
	2.0	0.00	35.90	71800	510



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Statistics	Accumulative Size (μm)	Blank-corrected (Counts/part)	Blank-corrected (Counts/cm ²)
Average	0.3	2964364	21063
	0.5	1022533	7265
	0.7	583107	4143
	1.0	389654	2769
	2.0	88347	628
Standard Deviation	0.3	435869	3097
	0.5	252692	1795
	0.7	179733	1277
	1.0	135493	963
	2.0	35023	249
%RSD Deviation	0.3	15%	15%
	0.5	25%	25%
	0.7	31%	31%
	1.0	35%	35%
	2.0	40%	40%

ALS Testing Services
(Thailand) Co.,Ltd.

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