Gauge model - 3450 A Gauge serial number - 000042

Reference Density standard counts: System 1 = 07262 System 2 = 01709
Reference Moisture standard count: 0968

alibration Date: 01-07-2008 Print Date: 01-07-2008 Bay = 046

*** Density calibration count data ***

Depth (in)	Magnes 1778	Mag/Al 2200	Alumin 2706
BS	03361	02422	01781
02	06452	04237	02729
04	32399	25238	18436
06	23586	16669	11013
08	15205	09832	05896
10	09290	05593	03246
12	05556	03324	02105

*** Density performance parameters ***

Pos	A	B*1000	C	'Y'	Slope	Prec
BS	2.756	1.34856	-0.11679	2200	2.2	8.21
02	6.550	1.35497	-0.11312	2200	5.3	4.69
04	10.984	0.56311	0.47319	2200	18.0	3.27
06	12.962	0.91834	-0.04651	2200	17.0	2.86
08	13.008	1.18010	-0.05841	2200	13.0	2.93
10	13.444	1.52226	-0.10834	2200	8.7	3.32
12	13.168	1.88356	-0.13790	2200	5.1	4.34

*** Moisture calibration count data ***

Mag 0	Mag/Poly 597	S R
0034	0599	0576

*** Moisture performance parameters ***

E	F*1000	Rat	Prec	S R	Exerr
0.03512	0.97768	3.07	6.15	-24.3	18.3

***** Density Standard Decay Sheet *****

Gauge model - 3450 A
Serial- 000042

Calib Date: 01-07-2008
Print Date: 01-07-2008

Ref. std. cnt., System 1 = 7262 System 2 = 1709

Range of projected density standard counts at future dates, System 1

Date	Lower Limit of Projected density Standard Count	Upper Limit of Projected density Standard Count
02-01-2008	7178	7323
03-01-2008	7165	7310
04-01-2008	7151	7296
05-01-2008	7138	7282
06-01-2008	7124	7268
07-01-2008	7110	7254
08-01-2008	7096	7240
09-01-2008	7083	7226
10-01-2008	7069	7212
11-01-2008	7056	7198
12-01-2008	7042	7185
01-01-2009	7029	7171
02-01-2009	7015	7157

Range of projected density standard counts at future dates, System 2

Date	Lower Limit of Projected density Standard Count	Upper Limit of Projected density Standard Count
02-01-2008	1689	1723
03-01-2008	1686	1720
04-01-2008	1683	1717
05-01-2008	1680	1714
06-01-2008	1676	1710
07-01-2008	1673	1707
08-01-2008	1670	1704
09-01-2008	1667	1700
10-01-2008	1664	1697
11-01-2008	1660	1694
12-01-2008	1657	1691
01-01-2009	1654	1687
02-01-2009	1651	1684

Gauge model - 3450 A Gauge serial number - 000042

Reference standard counts: System 1 - 07262 System 2 - 01709

a oration Date: 01-07-2008 Print Date: 01-07-2008 Bay = 046

*** Thin layer calibration count data ***

	Mag 1778	Mg/Al 2200	Alum 2706	Std. count	BG
ystem 1	17526	15488	13194	07262	000
ystem 2	03361	02422	01781	01709	000

	>> System 1 <<		>> System 2 <<	
hickness	Mg on Al	Al on Mg	Mg on Al	Al on Mg
5.4 mm	16866	13903	02633	02251
1.8 mm	17166	13616	02791	02125
8.1 mm	17377	13420	02915	02031
4.5 mm	17497	13235	03015	01940
0.8 mm	17565	13186	03087	01888

*** Gauge Parameters ***

	A	B*1000	C	Prec
) em 1:	-0.59827	-0.455933	-3.74609	7.90
ystem 2:	7.73467	0.776009	0.01222	9.42

** K Factor Parameters **

System 1	Mg on Al	Al on Mg	Average
P1	2.78835	1.67022	2.20168
Q1	0.10496	0.09452	0.10024
R1	0.01146	0.00757	0.00948

System 2	Mg on Al	Al on Mg	Average
P2	1.11399	1.36768	1.22712
Q2	0.04176	0.05062	0.04599
R2	0.00156	0.00372	0.00244

Thickness (mm)	DT Precision
25.4	15.6
38.1	9.9
50.8	8.2
63.5	7.3
76.2	6.6
88.9	6.1
101.6	6.2

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Thick.	K1	K2	Mag	Limit	Alum	Limit
25.4	0.16312	0.37911	1775	1749 - 1815	2594	2565 - 2629
31.8	0.08185	0.28247	1772	1749 - 1800	2565	2549 - 2606
38.1	0.03885	0.21032	1756	1741 - 1786	2562	2536 - 2600
44.5	0.01609	0.15643	1748	1731 - 1783	2573	2550 - 2602
50.8	0.00405	0.11619	1744	1730 - 1775	2572	2549 - 2600
101.6	-0.00939	0.00903	1757	1749 - 1765	2568	2560 - 2584

Gauge model - 3450 A Gauge serial number - 000042

ference standard counts: System 1 - 07262 System 2 - 01709

Moisture - 0968

alibration Date: 01-07-2008 Print Date: 01-07-2008 Bay = 046

*** Factory Calibration Re-Entry Constants ***

The factory calibration constants can be re-entered into the gauge if the need arises. This capability is accessed through the Extended Functions menu. When re-entering the calibration constants, enter the values exactly as shown below:

E = 0.035124
F = 0.977685

Depth	A	B	C
BS	2.7556	1.348558	-0.116786
02	6.5502	1.354968	-0.113122
04	10.9840	0.563107	0.473193
06	12.9620	0.918339	-0.046511
08	13.0084	1.180098	-0.058406
10	13.4441	1.522260	-0.108336
12	13.1682	1.883565	-0.137896

A1 = -0.59827
B1 = -.0073031
C1 = -3.74609

A2 = 7.73467
B2 = .0124301
C2 = 0.01222

P1 = 2.201679
Q1 = 2.546041
R1 = 0.009477

P2 = 1.227116
Q2 = 1.168176
R2 = 0.002444

Gauge model - 3450 A Gauge serial number - 000042

Reference standard counts: System 1 - 07262 System 2 - 01709

Moisture - 0968

alibration Date: 01-07-2008 Print Date: 01-07-2008 Bay = 046

The true gravimetric densities of the metallic blocks used in this calibration are listed on Page 1 of this document. To account for the influence of the chemical composition of these blocks on instrument response (as prescribed in ASTM D2922, Section A1), these gravimetric densities are multiplied by chemical correction factors prior to the calculation of the density calibration parameters likewise shown on Page 1 of this document. These correction factors are 0.988 for magnesium, 0.974 for magnesium/aluminum, and 0.964 for aluminum.

To account for the influence of the chemical composition of these blocks on instrument response (as prescribed in ASTM D2922, Section A1), these gravimetric densities are multiplied by chemical correction factors prior to the calculation of the thin layer calibration parameters shown on Page 3 of this report. These correction factors are 0.988 for magnesium, 0.989 for magnesium/aluminum, and 0.949 for aluminum.

Statement of Traceability:

"The above referenced equipment has been calibrated by the manufacturer to established and documented procedures. Density values for the standards used in the calibration of this equipment were established using instruments whose measurements are traceable to the National Institute of Standards and Technology. Test procedures and supporting documentation are available upon request."

This instrument was found to be mechanically sound and electronically stable both prior to and after its calibration.
All data listed in the preceding four pages of this report are applicable to this instrument only. This instrument was calibrated by mk on 01-07-2008 using the 3-Block Full Calibration.
This calibration was performed at:

Troxler Labs
3008 Cornwallis Road
PO Box 12057
Research Triangle Park, NC 27709

Special considerations and limitations of use for this device and its calibration are described in the Manual of Operation and Instruction provided with this instrument.