

LDEOC Ethylene Acrylate  
Wednesday, August 1, 2012 69  
All Valid Reference Data and All Valid Batch 8 & 9 Runs  
Analyzed by Elastomer Batch

The GLM Procedure

Class Level Information

Class	Levels	Values
SPECIAL	9	1 2 3 4 5 6 7 8 9
Number of Observations Read		306
Number of Observations Used		306

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All Valid Reference Data and All Valid Batch 8 & 9 Runs  
 Analyzed by Elastomer Batch

The GLM Procedure

Dependent Variable: VOLC

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	39.9631255	4.9953907	7.10	<.0001
Error	297	208.8293009	0.7031290		
Corrected Total	305	248.7924265			

R-Square	Coeff Var	Root MSE	VOLC Mean
0.160628	3.348242	0.838528	25.04382

Source	DF	Type I SS	Mean Square	F Value	Pr > F
SPECIAL	8	39.96312552	4.99539069	7.10	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
SPECIAL	8	39.96312552	4.99539069	7.10	<.0001

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The GLM Procedure

Dependent Variable: HARD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	162.5945852	20.3243232	14.48	<.0001
Error	297	416.9348265	1.4038210		
Corrected Total	305	579.5294118			

R-Square	Coeff Var	Root MSE	HARD Mean
0.280563	-9.086662	1.184830	-13.03922

Source	DF	Type I SS	Mean Square	F Value	Pr > F
SPECIAL	8	162.5945852	20.3243232	14.48	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
SPECIAL	8	162.5945852	20.3243232	14.48	<.0001

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All Valid Reference Data and All Valid Batch 8 & 9 Runs  
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The GLM Procedure

Dependent Variable: TENS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	218.442106	27.305263	2.13	0.0331
Error	297	3809.948591	12.828110		
Corrected Total	305	4028.390697			

R-Square	Coeff Var	Root MSE	TENS Mean
0.054226	-22.93484	3.581635	-15.61657

Source	DF	Type I SS	Mean Square	F Value	Pr > F
SPECIAL	8	218.4421061	27.3052633	2.13	0.0331

Source	DF	Type III SS	Mean Square	F Value	Pr > F
SPECIAL	8	218.4421061	27.3052633	2.13	0.0331

PlotByBatchA.lst

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All Valid Reference Data and All Valid Batch 8 &amp; 9 Runs

Analyzed by Elastomer Batch

The GLM Procedure

Least Squares Means

SPECIAL	VOLC LSMEAN	LSMEAN Number
1	24.1944444	1
2	24.5350000	2
3	25.0990909	3
4	24.6516279	4
5	24.9032500	5
6	24.8769512	6
7	25.3884746	7
8	25.6877419	8
9	25.7900000	9

Least Squares Means for effect SPECIAL

Pr &gt; |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: VOLC

i/j	1	2	3	4	5	6	7	8
9								
1		0.4997	0.0044	0.1380	0.0227	0.0211	<.0001	<.0001
0.0007								
2	0.4997		0.2049	0.7904	0.4030	0.4264	0.0498	0.0101
0.0264								
3	0.0044	0.2049		0.0218	0.3214	0.1998	0.1134	0.0053
0.0870								
4	0.1380	0.7904	0.0218		0.1730	0.1546	<.0001	<.0001
0.0044								
5	0.0227	0.4030	0.3214	0.1730		0.8709	0.0050	0.0001
0.0265								
6	0.0211	0.4264	0.1998	0.1546	0.8709		0.0004	<.0001
0.0187								
7	<.0001	0.0498	0.1134	<.0001	0.0050	0.0004		0.1087
0.3048								
8	<.0001	0.0101	0.0053	<.0001	0.0001	<.0001	0.1087	
0.8004								
9	0.0007	0.0264	0.0870	0.0044	0.0265	0.0187	0.3048	0.8004

SPECIAL	HARD LSMEAN	LSMEAN Number
1	-12.5555556	1
2	-12.5000000	2
3	-12.3636364	3
4	-12.8604651	4
5	-11.8500000	5

6	-13.0000000	6
7	-13.7627119	7
8	-14.2580645	8

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The GLM Procedure  
 Least Squares Means

SPECIAL	HARD LSMEAN	LSMEAN Number
9	-14.4000000	9

Least Squares Means for effect SPECIAL  
 Pr > |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: HARD

i/j	1	2	3	4	5	6	7	8
9								
1		0.9379	0.6670	0.4832	0.1076	0.2863	0.0047	0.0002
0.0056								
2	0.9379		0.8281	0.5610	0.2963	0.4105	0.0400	0.0056
0.0174								
3	0.6670	0.8281		0.0710	0.0663	0.0096	<.0001	<.0001
0.0004								
4	0.4832	0.5610	0.0710		0.0001	0.5321	0.0002	<.0001
0.0063								
5	0.1076	0.2963	0.0663	0.0001		<.0001	<.0001	<.0001
<.0001								
6	0.2863	0.4105	0.0096	0.5321	<.0001		0.0002	<.0001
0.0108								
7	0.0047	0.0400	<.0001	0.0002	<.0001	0.0002		0.0604
0.2491								
8	0.0002	0.0056	<.0001	<.0001	<.0001	<.0001	0.0604	
0.8039								
9	0.0056	0.0174	0.0004	0.0063	<.0001	0.0108	0.2491	0.8039

SPECIAL	TENS LSMEAN	LSMEAN Number
1	-16.2333333	1
2	-14.5250000	2
3	-14.9142424	3
4	-15.0488372	4
5	-14.3082500	5
6	-16.1029268	6
7	-15.6747458	7
8	-17.3296774	8
9	-16.0800000	9

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The GLM Procedure  
 Least Squares Means

Least Squares Means for effect SPECIAL  
 Pr > |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: TENS

i/j	1	2	3	4	5	6	7	8
9								
1		0.4280	0.3282	0.3677	0.1462	0.9175	0.6633	0.4195
0.9389								
2	0.4280		0.8375	0.7798	0.9082	0.3903	0.5349	0.1416
0.5180								
3	0.3282	0.8375		0.8711	0.4724	0.1085	0.3295	0.0074
0.4982								
4	0.3677	0.7798	0.8711		0.3473	0.1191	0.3842	0.0073
0.5428								
5	0.1462	0.9082	0.4724	0.3473		0.0098	0.0635	0.0005
0.2979								
6	0.9175	0.3903	0.1085	0.1191	0.0098		0.4843	0.1053
0.9889								
7	0.6633	0.5349	0.3295	0.3842	0.0635	0.4843		0.0381
0.8082								
8	0.4195	0.1416	0.0074	0.0073	0.0005	0.1053	0.0381	
0.4696								
9	0.9389	0.5180	0.4982	0.5428	0.2979	0.9889	0.8082	0.4696

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.



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All Valid Reference Data and All Valid Batch 8 & 9 Runs  
Analyzed by Lab

The GLM Procedure

Class Level Information

Class	Levels	Values
LTMSLAB	5	A B E G I

Number of Observations Read	306
Number of Observations Used	306

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All Valid Reference Data and All Valid Batch 8 & 9 Runs  
 Analyzed by Lab

The GLM Procedure

Dependent Variable: VOLC

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	51.3067371	12.8266843	19.55	<.0001
Error	301	197.4856894	0.6560986		
Corrected Total	305	248.7924265			

R-Square	Coeff Var	Root MSE	VOLC Mean
0.206223	3.234327	0.809999	25.04382

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LTMSLAB	4	51.30673705	12.82668426	19.55	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LTMSLAB	4	51.30673705	12.82668426	19.55	<.0001

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All Valid Reference Data and All Valid Batch 8 & 9 Runs  
 Analyzed by Lab

The GLM Procedure

Dependent Variable: HARD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	112.7624622	28.1906156	18.18	<.0001
Error	301	466.7669495	1.5507208		
Corrected Total	305	579.5294118			

R-Square	Coeff Var	Root MSE	HARD Mean
0.194576	-9.550263	1.245279	-13.03922

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LTMSLAB	4	112.7624622	28.1906156	18.18	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LTMSLAB	4	112.7624622	28.1906156	18.18	<.0001

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All Valid Reference Data and All Valid Batch 8 & 9 Runs  
 Analyzed by Lab

The GLM Procedure

Dependent Variable: TENS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	17.337308	4.334327	0.33	0.8609
Error	301	4011.053389	13.325759		
Corrected Total	305	4028.390697			

R-Square	Coeff Var	Root MSE	TENS Mean
0.004304	-23.37547	3.650446	-15.61657

Source	DF	Type I SS	Mean Square	F Value	Pr > F
LTMSLAB	4	17.33730824	4.33432706	0.33	0.8609

Source	DF	Type III SS	Mean Square	F Value	Pr > F
LTMSLAB	4	17.33730824	4.33432706	0.33	0.8609

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 Analyzed by Lab

The GLM Procedure  
 Least Squares Means

LTMSLAB	VOLC LSMEAN	LSMEAN Number
A	24.6416304	1
B	25.2175758	2
E	23.7525000	3
G	25.4404706	4
I	25.1872549	5

Least Squares Means for effect LTMSLAB  
 Pr > |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: VOLC

i/j	1	2	3	4	5
1		<.0001	0.0004	<.0001	0.0001
2	<.0001		<.0001	0.0945	0.8410
3	0.0004	<.0001		<.0001	<.0001
4	<.0001	0.0945	<.0001		0.0786
5	0.0001	0.8410	<.0001	0.0786	

LTMSLAB	HARD LSMEAN	LSMEAN Number
A	-13.2717391	1
B	-13.2424242	2
E	-15.0000000	3
G	-12.2235294	4
I	-13.2549020	5

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 Analyzed by Lab

The GLM Procedure  
 Least Squares Means

Least Squares Means for effect LTMSLAB  
 Pr > |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: HARD

i/j	1	2	3	4	5
1		0.8841	<.0001	<.0001	0.9383
2	0.8841		<.0001	<.0001	0.9572
3	<.0001	<.0001		<.0001	<.0001
4	<.0001	<.0001	<.0001		<.0001
5	0.9383	0.9572	<.0001	<.0001	

LTMSLAB	TENS LSMEAN	LSMEAN Number
A	-15.7750000	1
B	-15.5454545	2
E	-16.3975000	3
G	-15.3317647	4
I	-15.7137255	5

Least Squares Means for effect LTMSLAB  
 Pr > |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: TENS

i/j	1	2	3	4	5
1		0.6969	0.5789	0.4203	0.9235
2	0.6969		0.4576	0.7215	0.8049
3	0.5789	0.4576		0.3445	0.5598
4	0.4203	0.7215	0.3445		0.5551
5	0.9235	0.8049	0.5598	0.5551	

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

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The GLM Procedure

Class Level Information

Class	Levels	Values
SPECIAL	9	1 2 3 4 5 6 7 8 9
LTMSLAB	5	A B E G I

Number of Observations Read 306  
Number of Observations Used 306

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All Valid Reference Data and All Valid Batch 8 & 9 Runs  
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The GLM Procedure

Dependent Variable: VOLC

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	33	125.6042719	3.8061901	8.40	<.0001
Error	272	123.1881546	0.4528976		
Corrected Total	305	248.7924265			

R-Square	Coeff Var	Root MSE	VOLC Mean
0.504856	2.687196	0.672977	25.04382

Source	DF	Type I SS	Mean Square	F Value	Pr > F
SPECIAL	8	39.96312552	4.99539069	11.03	<.0001
LTMSLAB	4	54.48523371	13.62130843	30.08	<.0001
SPECIAL*LTMSLAB	21	31.15591268	1.48361489	3.28	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
SPECIAL	8	39.55622155	4.94452769	10.92	<.0001
LTMSLAB	4	38.28292041	9.57073010	21.13	<.0001
SPECIAL*LTMSLAB	21	31.15591268	1.48361489	3.28	<.0001



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The GLM Procedure

Dependent Variable: HARD

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	33	341.3885227	10.3451067	11.82	<.0001
Error	272	238.1408891	0.8755180		
Corrected Total	305	579.5294118			

R-Square	Coeff Var	Root MSE	HARD Mean
0.589079	-7.175977	0.935691	-13.03922

Source	DF	Type I SS	Mean Square	F Value	Pr > F
SPECIAL	8	162.5945852	20.3243232	23.21	<.0001
LTMSLAB	4	94.9642184	23.7410546	27.12	<.0001
SPECIAL*LTMSLAB	21	83.8297191	3.9918914	4.56	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
SPECIAL	8	90.85981785	11.35747723	12.97	<.0001
LTMSLAB	4	50.69418251	12.67354563	14.48	<.0001
SPECIAL*LTMSLAB	21	83.82971907	3.99189138	4.56	<.0001

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The GLM Procedure

Dependent Variable: TENS

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	33	777.553304	23.562221	1.97	0.0018
Error	272	3250.837394	11.951608		
Corrected Total	305	4028.390697			

R-Square	Coeff Var	Root MSE	TENS Mean
0.193018	-22.13745	3.457110	-15.61657

Source	DF	Type I SS	Mean Square	F Value	Pr > F
SPECIAL	8	218.4421061	27.3052633	2.28	0.0221
LTMSLAB	4	8.6916704	2.1729176	0.18	0.9477
SPECIAL*LTMSLAB	21	550.4195271	26.2104537	2.19	0.0023

Source	DF	Type III SS	Mean Square	F Value	Pr > F
SPECIAL	8	82.2491107	10.2811388	0.86	0.5506
LTMSLAB	4	57.7746342	14.4436585	1.21	0.3074
SPECIAL*LTMSLAB	21	550.4195271	26.2104537	2.19	0.0023

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The GLM Procedure

Least Squares Means

SPECIAL	VOLC LSMEAN	LSMEAN Number
1	Non-est	1
2	Non-est	2
3	Non-est	3
4	Non-est	4
5	24.5874995	5
6	24.2002058	6
7	25.2360286	7
8	25.4073576	8
9	Non-est	9

Least Squares Means for effect SPECIAL

Pr &gt; |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: VOLC

i/j	1	2	3	4	5	6	7	8
9								
1		.	.	.	.	.	.	.
2	.		.	.	.	.	.	.
3	.	.		.	.	.	.	.
4	.	.	.		.	.	.	.
5	.	.	.	.		0.0517	0.0010	0.0002
6	.	.	.	.	0.0517		<.0001	<.0001
7	.	.	.	.	0.0010	<.0001		0.3539
8	.	.	.	.	0.0002	<.0001	0.3539	
9	.	.	.	.	.	.	.	.

SPECIAL	HARD LSMEAN	LSMEAN Number
1	Non-est	1
2	Non-est	2
3	Non-est	3
4	Non-est	4
5	-12.0341658	5
6	-13.2762923	6
7	-14.0193254	7
8	-14.3921212	8

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The GLM Procedure  
 Least Squares Means

SPECIAL	HARD LSMEAN	LSMEAN Number
9	Non-est	9

Least Squares Means for effect SPECIAL  
 Pr > |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: HARD

i/j	1	2	3	4	5	6	7	8
9								
1		.	.	.	.	.	.	.
2	.		.	.	.	.	.	.
3	.	.		.	.	.	.	.
4	.	.	.		.	.	.	.
5	.	.	.	.		<.0001	<.0001	<.0001
6	.	.	.	.	<.0001		0.0009	<.0001
7	.	.	.	.	<.0001	0.0009		0.1473
8	.	.	.	.	<.0001	<.0001	0.1473	
9	.	.	.	.	.	.	.	.

SPECIAL	TENS LSMEAN	LSMEAN Number
1	Non-est	1
2	Non-est	2
3	Non-est	3
4	Non-est	4
5	-14.7372363	5
6	-16.1922475	6
7	-15.9395714	7
8	-16.8527394	8
9	Non-est	9

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The GLM Procedure  
 Least Squares Means

Least Squares Means for effect SPECIAL  
 Pr > |t| for H0: LSMean(i)=LSMean(j)

Dependent Variable: TENS

i/j	1	2	3	4	5	6	7	8
9								
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	0.1541	0.2301	0.0617
6	.	.	.	.	0.1541	.	0.7566	0.4953
7	.	.	.	.	0.2301	0.7566	.	0.3361
8	.	.	.	.	0.0617	0.4953	0.3361	.
9	.	.	.	.	.	.	.	.

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.

LTMSLAB	VOLC LSMEAN	HARD LSMEAN	TENS LSMEAN
A	Non-est	Non-est	Non-est
B	Non-est	Non-est	Non-est
E	Non-est	Non-est	Non-est
G	Non-est	Non-est	Non-est
I	Non-est	Non-est	Non-est

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All Valid Reference Data and All Valid Batch 8 & 9 Runs  
Distribution of Data Set

The FREQ Procedure

Table of LTMSLAB by SPECIAL

LTMSLAB	SPECIAL									Total
Frequency, Percent Row Pct Col Pct	1	2	3	4	5	6	7	8	9	
A	8	2	0	13	11	33	21	2	2	92
	2.61	0.65	0.00	4.25	3.59	10.78	6.86	0.65	0.65	30.07
	88.89	50.00	0.00	30.23	27.50	40.24	35.59	6.45	40.00	
B	0	2	20	6	7	11	9	11	0	66
	0.00	0.65	6.54	1.96	2.29	3.59	2.94	3.59	0.00	21.57
	0.00	3.03	30.30	9.09	10.61	16.67	13.64	16.67	0.00	
	0.00	50.00	60.61	13.95	17.50	13.41	15.25	35.48	0.00	
E	0	0	1	0	1	2	3	5	0	12
	0.00	0.00	0.33	0.00	0.33	0.65	0.98	1.63	0.00	3.92
	0.00	0.00	8.33	0.00	8.33	16.67	25.00	41.67	0.00	
	0.00	0.00	3.03	0.00	2.50	2.44	5.08	16.13	0.00	
G	1	0	12	12	13	19	16	10	2	85
	0.33	0.00	3.92	3.92	4.25	6.21	5.23	3.27	0.65	27.78
	1.18	0.00	14.12	14.12	15.29	22.35	18.82	11.76	2.35	
	11.11	0.00	36.36	27.91	32.50	23.17	27.12	32.26	40.00	
I	0	0	0	12	8	17	10	3	1	51
	0.00	0.00	0.00	3.92	2.61	5.56	3.27	0.98	0.33	16.67
	0.00	0.00	0.00	23.53	15.69	33.33	19.61	5.88	1.96	
	0.00	0.00	0.00	27.91	20.00	20.73	16.95	9.68	20.00	
Total	9	4	33	43	40	82	59	31	5	306
	2.94	1.31	10.78	14.05	13.07	26.80	19.28	10.13	1.63	100.00