ANOVAOneWay (03/12/2023 15:32:18

Notes

Description	Perform One-Way ANOVA
User Name	valin
Operation Time	03/12/2023 15:32:18
Report Status	New Analysis Report
Data Filter	No

Input Data

	Data	Range
Dependent Variable	[Book1]Sheet1!F"Hardness Shore A"	[1*:81*]
Factor	[Book1]Sheet1!C"Binder fraction (%w)"	[1*:81*]

Descriptive Statistics

	N Analysis	N Missing	Mean	Standard Deviation	SE of Mean
5	27	0	38,97667	6,16054	1,1856
6	9	0	42	1,35434	0,45145
7	36	0	41,17417	4,25303	0,70884
8	9	0	41,2	1,5138	0,5046

ANOVA

Overall ANOVA

	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	3	103,57001	34,52334	1,60831	0,19432
Error	77	1652,85507	21,46565		
Total	80	1756,42509			

Null Hypothesis: The means of all levels are equal.
Alternative Hypothesis: The means of one or more levels are different.
At the 0.05 level, the population means are not significantly different.

Fit Statistics

	R-Square	Coeff Var	Root MSE	Data Mean
	0,05897	0,1143	4,6331	40,5363

Means Comparisons

Tukey Test

	MeanDiff	SEM	q Value	Prob	Alpha	Sig	LCL	UCL
6 5	3,02333	1,78328	2,39762	0,33314	0,05	0	-1,65963	7,7063
7 5	2,1975	1,17953	2,63472	0,25253	0,05	0	-0,89999	5,29499
7 6	-0,82583	1,72666	0,6764	0,96367	0,05	0	-5,36009	3,70843
8 5	2,22333	1,78328	1,76319	0,59931	0,05	0	-2,45963	6,9063
8 6	-0,8	2,18407	0,51801	0,98308	0,05	0	-6,53543	4,93543
8 7	0,02583	1,72666	0,02116	1	0,05	0	-4,50843	4,56009

Grouping Letters Table

Tukey Test

	Mean	Groups
6	42	A
8	41,2	A
7	41,17417	A
5	38,97667	A

Means that do not share a letter are significantly different.

Sig equals 1 indicates that the difference of the means is significant at the 0,05 level.
Sig equals 0 indicates that the difference of the means is not significant at the 0,05 level.

Homogeneity of Variance Test

Powers

	Alpha	Sample Size	Power
Actual Power	0,05	81	0,40709