Stability Data Analysis

Show instructions

Instructions:

- Prepare an Excel file: the first row should contain column headers, where the first column is the name of the parameter under study (e.g., "API content", "Humidity"), the second column is the time values (e.g., "Time [months]"), the third column is the lower specification limit ("LSL"), the fourth column is the upper specification limit ("USL"), and the subsequent columns contain the measurement results for individual product series. Values must be numerical, and cells should remain blank if data is missing.
- Upload an Excel file containing stability data.
- The selected series will be displayed on the chart along with regression lines.
- Below the chart, you will find a table with regression parameters for the selected series.
- Interpretation of results: Linear regression helps determine the trend of parameter changes over time. An R^2 value close to 1 indicates a good model fit. The slope of the regression line shows whether the parameter values increase, decrease, or remain stable.

Choose an Excel file (xlsx or xls):

Drag and drop file here
Limit 200MB per file • XLSX, XLS
Browse files

Stability Montelukast.xlsx 10.0KB

Show data preview

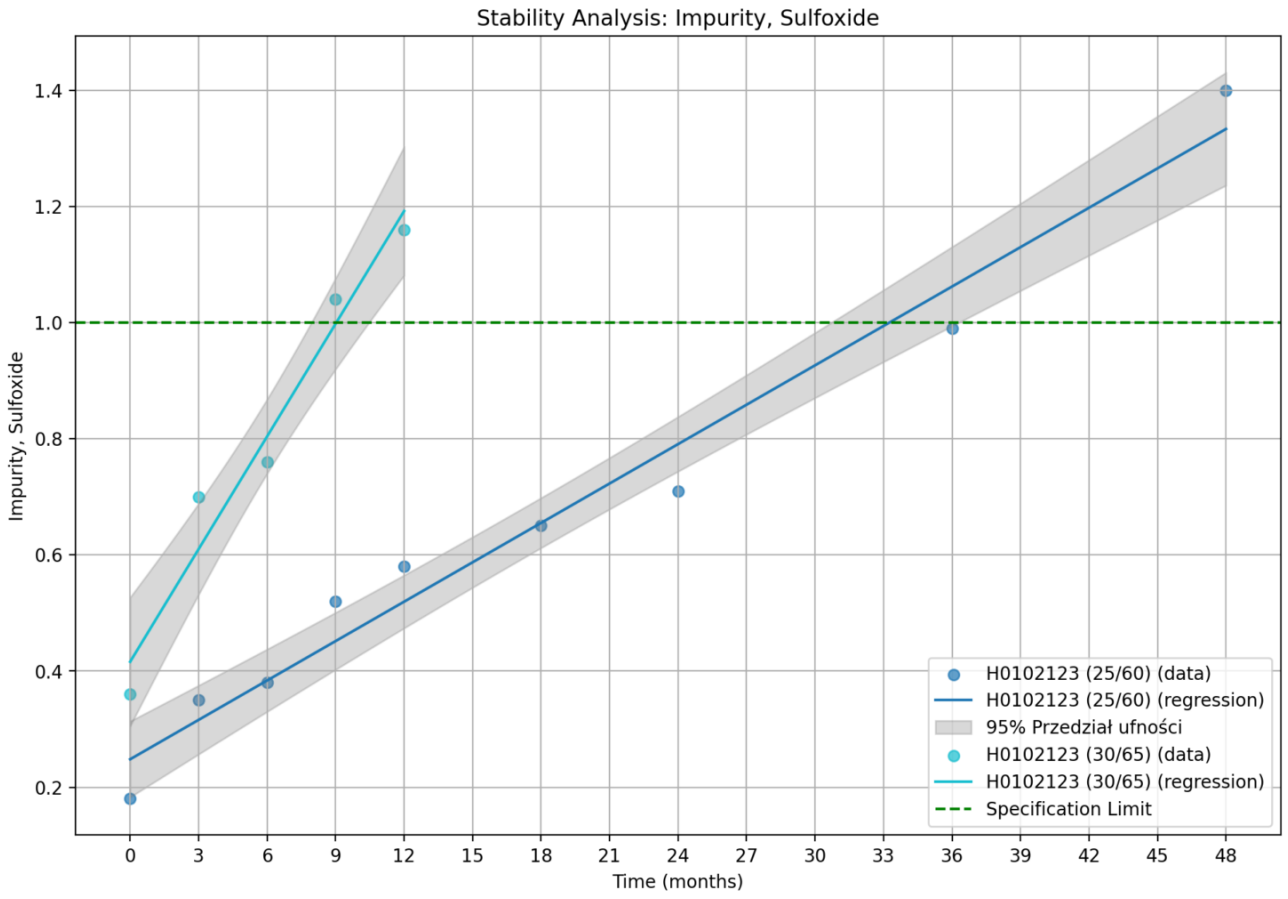
Data preview (first 10 rows):

	Test	Time	Min	Max	H0102123 (25/60)	H0102123 (30/65)	H0102123 (40/75)	H013123 (25/60)
0	Impurity, Sulfoxide	0	None	1	0.18	0.36	0.72	0.018
1	None	3	None	1	0.35	0.7	1.4	0.035
2	None	6	None	1	0.38	0.76	1.52	0.038
3	None	9	None	1	0.52	1.04	None	0.052
4	None	12	None	1	0.58	1.16	None	0.058
5	None	18	None	1	0.65	None	None	0.065
6	None	24	None	1	0.71	None	None	0.071
7	None	36	None	1	0.99	None	None	0.099
8	None	48	None	1	1.4	None	None	0.14

Select series for analysis:

H0102123 (25/60) × H0102123 (30/65) ×

Show confidence interval for regression line



Regression Analysis Results for Selected Series

	Series	Slope	Intercept	Correlation Coefficient (r)	p-value	Standard Deviation	Predicted shelf life	Predicted shelf life range
0	H0102123 (25/60)	0.023	0.248	0.986	1.071e-06	0.001	33.3 miesięcy	29.0 - 37.6 miesięcy
1	H0102123 (30/65)	0.065	0.416	0.979	3.526e-03	0.008	9.0 miesięcy	7.3 - 10.7 miesięcy