

## #1317: OptiStruct – Neuber Stress/Strain for Dynamic Analysis

**Product:** OptiStruct

**Product Version:** OptiStruct 2017.2.3 or above

### Topic Objective

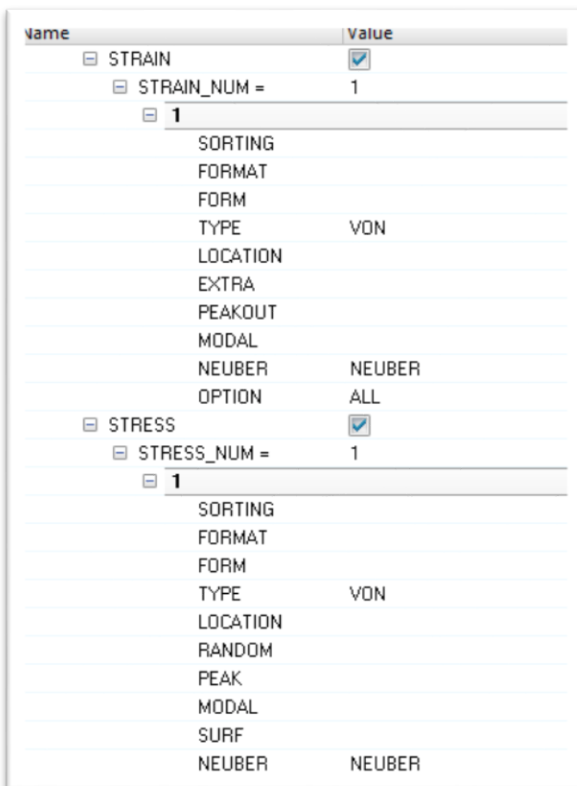
Neuber Stress/Strain for Dynamic Analysis in OptiStruct.

### Topic Detail

Neuber stress/strain is available for dynamic analysis. Neuber corrected stress and strain are calculated based on the Von mises stress/strain from elastic analysis and the nonlinear material property defined in MATS1 card. Neuber stress and strain are now supported for frequency response and transient response analyses (both direct and modal solutions).

Request format:

```
STRESS(NEUBER)  
STRAIN(NEUBER)
```

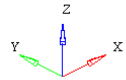
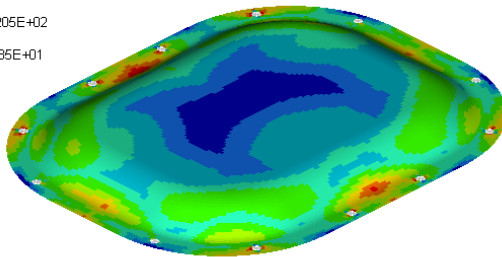
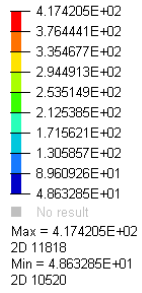


Name	Value
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<input type="checkbox"/> STRAIN_NUM =	1
<input type="checkbox"/> 1	
SORTING	
FORMAT	
FORM	
TYPE	VON
LOCATION	
EXTRA	
PEAKOUT	
MODAL	
NEUBER	NEUBER
OPTION	ALL
<input type="checkbox"/> STRESS	<input checked="" type="checkbox"/>
<input type="checkbox"/> STRESS_NUM =	1
<input type="checkbox"/> 1	
SORTING	
FORMAT	
FORM	
TYPE	VON
LOCATION	
RANDOM	
PEAK	
MODAL	
SURF	
NEUBER	NEUBER

Neuber stress and strain are output in H3D format.

**Output of Von mises stress and Neuber stress on oil pan**

Contour Plot Subcase 8 (frf\_modal) : Load 21 - F = 4.000000E+03 : Frame 1 : Angle 0.000000  
Element Stresses (2D)(Von Mises Stress)



Contour Plot Subcase 8 (frf\_modal) : Load 21 - F = 4.000000E+03 : Frame 1 : Angle 0.000000  
Neuber Stresses(Neuber Stress)

