

## #1312: OptiStruct – Repeat Laminate

**Product:** OptiStruct

**Product Version:** OptiStruct 2017.2.2 or above

### Topic Objective

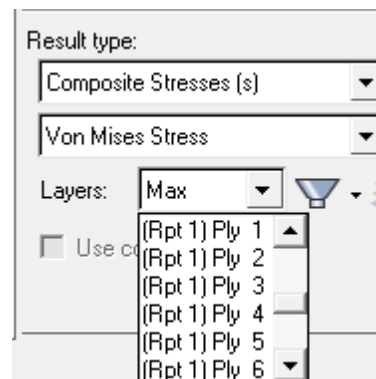
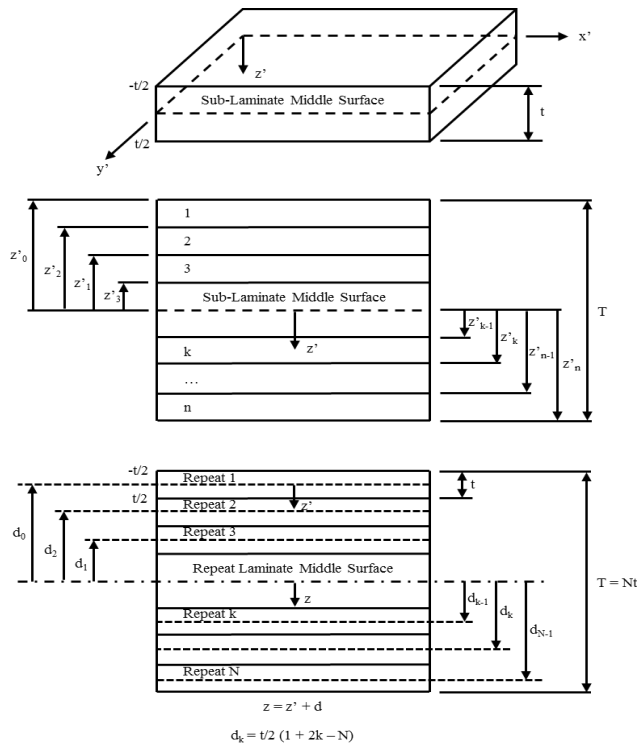
Repeat Laminate in OptiStruct.

### Topic Detail

Repeat laminate is implemented for analysis, which can be used to simulate repeated sub-laminate construction. Repeat laminates is supported for PCOMP, PCOMPG, and ply STACK composite. Output for repeat laminates are supported in OPTI, H3D, and PUNCH formats.

#### Stacking Sequence of repeat laminate

- Laminates with repeating ply pattern
- Repeat laminates are added to the bottom of the current laminate.



#### Input format for PCOMP

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PCOMP	PID	Z0	NSM	SB	FT	TREF	GE	LAM	
	MID1	T1	THETA1	SOUT1	MID2	T2	THETA2	SOUT2	
	MID3	T3	THETA3	SOUT3	etc.				
	DS	NRPT							

NRPT - Number of repeat laminates. Default = blank (Integer > 0 or blank)

### Input format for PCOMPG

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PCOMPG	PID	Z0	NSM	SB	FT	TREF	GE	LAM	
	GPLYID1	MID1	T1	THETA1	SOUT1				
	GPLYID2	MID2	T2	THETA2	SOUT2				
	...	...	...	...	...				
	DS	NRPT							

NRPT - Number of repeat laminates. Default = blank (Integer > 0 or blank)

### Input format for STACK

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
STACK	ID	LAM	PLYID1	PLYID2	PLYID3	PLYID4	PLYID5	PLYID6	
	PLYID7	...							

Optional continuation lines for repeat laminate definitions:

	NRPT	NUMBER							
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NRPT - NRPT flag indicating that repeat laminate data is to follow.

NUMBER - Number of repeat laminates. Default = blank (Integer > 0 or blank)

### Example: Composite shell under temperature loading

