- Project proposal -

Temperature and loading rate effects on transverse cracking in cross-ply laminates

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1. Introduction

2. Objectives

3. Materials

If all strain levels are applied to the same specimens: $8n$ specimens need to be tested, where n is the number of measurements for the same combination of parameters.

If each strain level is applied to one specimen: $40n$ specimens need to be tested, where n is the number of measurements for the same combination of parameters.

If each strain level is applied to one specimen only at high T: $28n$ specimens need to be tested, where n is the number of measurements for the same combination of parameters.

4. Methods

5. Expected outcomes

6. Audience

Students attending the Aerospace Materials course.

$v\ \left[\frac{mm}{min}\right]$	ε [%]	T [°]		Estimated time (no counting) for $L = 50\,[mm]$, $[min]$
		~ 20 (room)	120	
1	0.2	E_L, ρ_c, d	E_L, ρ_c, d	0.5
	0.4	E_L, ρ_c, d	E_L, ρ_c, d	0.6
	0.8	E_L, ρ_c, d	E_L, ρ_c, d	0.8
	1.0	E_L, ρ_c, d	E_L, ρ_c, d	0.9
	1.2	E_L, ρ_c, d	E_L, ρ_c, d	1
10	0.2	E_L, ρ_c, d	E_L, ρ_c, d	
	0.4	E_L, ρ_c, d	E_L, ρ_c, d	
	0.8	E_L, ρ_c, d	E_L, ρ_c, d	
	1.0	E_L, ρ_c, d	E_L, ρ_c, d	
	1.2	E_L, ρ_c, d	E_L, ρ_c, d	
50	0.2	E_L, ρ_c, d	E_L, ρ_c, d	
	0.4	E_L, ρ_c, d	E_L, ρ_c, d	
	0.8	E_L, ρ_c, d	E_L, ρ_c, d	
	1.0	E_L, ρ_c, d	E_L, ρ_c, d	
	1.2	E_L, ρ_c, d	E_L, ρ_c, d	
500	0.2	E_L, ρ_c, d	E_L, ρ_c, d	
	0.4	E_L, ρ_c, d	E_L, ρ_c, d	
	0.8	E_L, ρ_c, d	E_L, ρ_c, d	
	1.0	E_L, ρ_c, d	E_L, ρ_c, d	
	1.2	E_L, ρ_c, d	E_L, ρ_c, d	