

# EFFECT OF NATURAL WEATHERING AND ACCELERATED AGING ON *PINUS SP.*

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# INTRODUCTION

- ✿ This study compared accelerated and natural weathering methods and characterized the changes of wood with two surface coatings compared to control wood.

## MATERIAL AND METHODS

- ✿ The *Pinus* wood, were overthrown from homogeneous plantations of Rio Grande do Sul state, in southern Brazil.
- ✿ 15 specimens of the test piece of dimensions 150 x 95 x 25 mm were obtained. 5 samples were treated with Spray Prime bright white colour (Finish 1), ink Synthetic enamel in bright white colour (Finish 2) and five untreated controls.



# RESULTS AND DISCUSSION

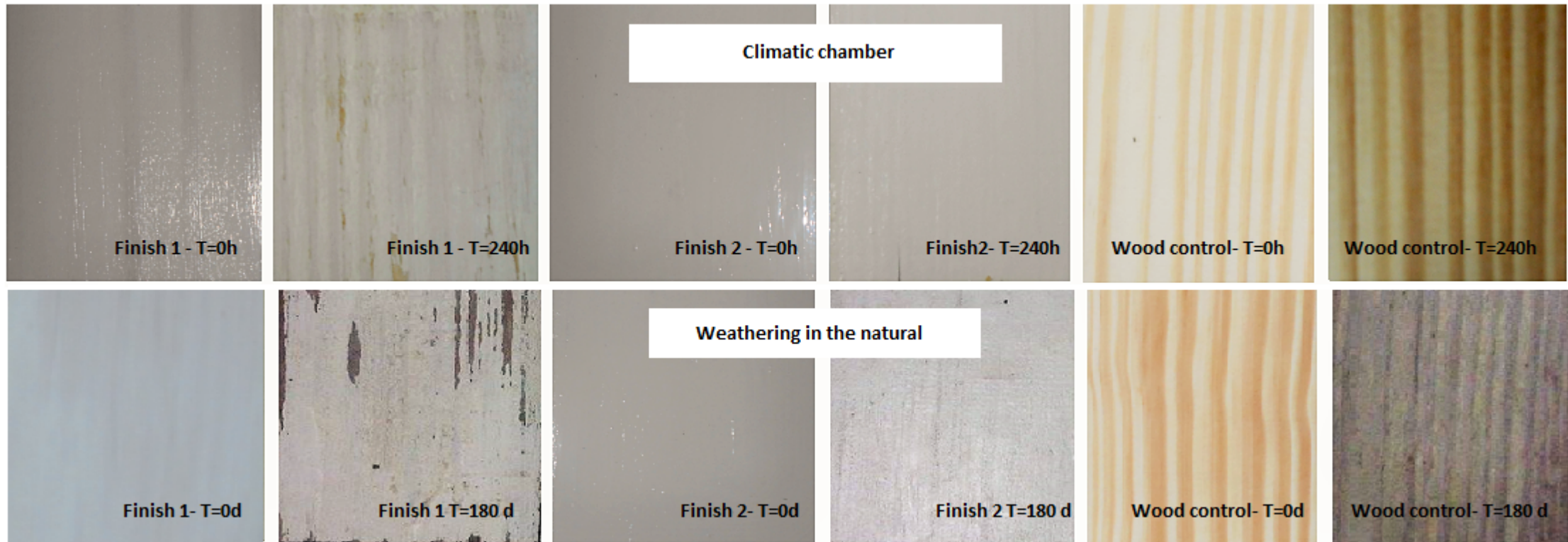


Figure 1. Colour changes of wood of *Pinus* sp. exposed to two weathering treatments.

# RESULTS AND DISCUSSION

Table 1 . Roughness changes of wood of Pinus sp. exposed to natural and accelerated aging.

	Average Roughness Ra ( $\mu\text{c}$ )			
	Weathering in the natural (days)		Climatic chamber (hours)	
	0	180	0	240
Finish 1	2.46	8.07	2.77	8.51
Finish 2	2.52	3.88	2.82	4.13
Wood control	4.99	13.92	4.92	9.98



# RESULTS AND DISCUSSION

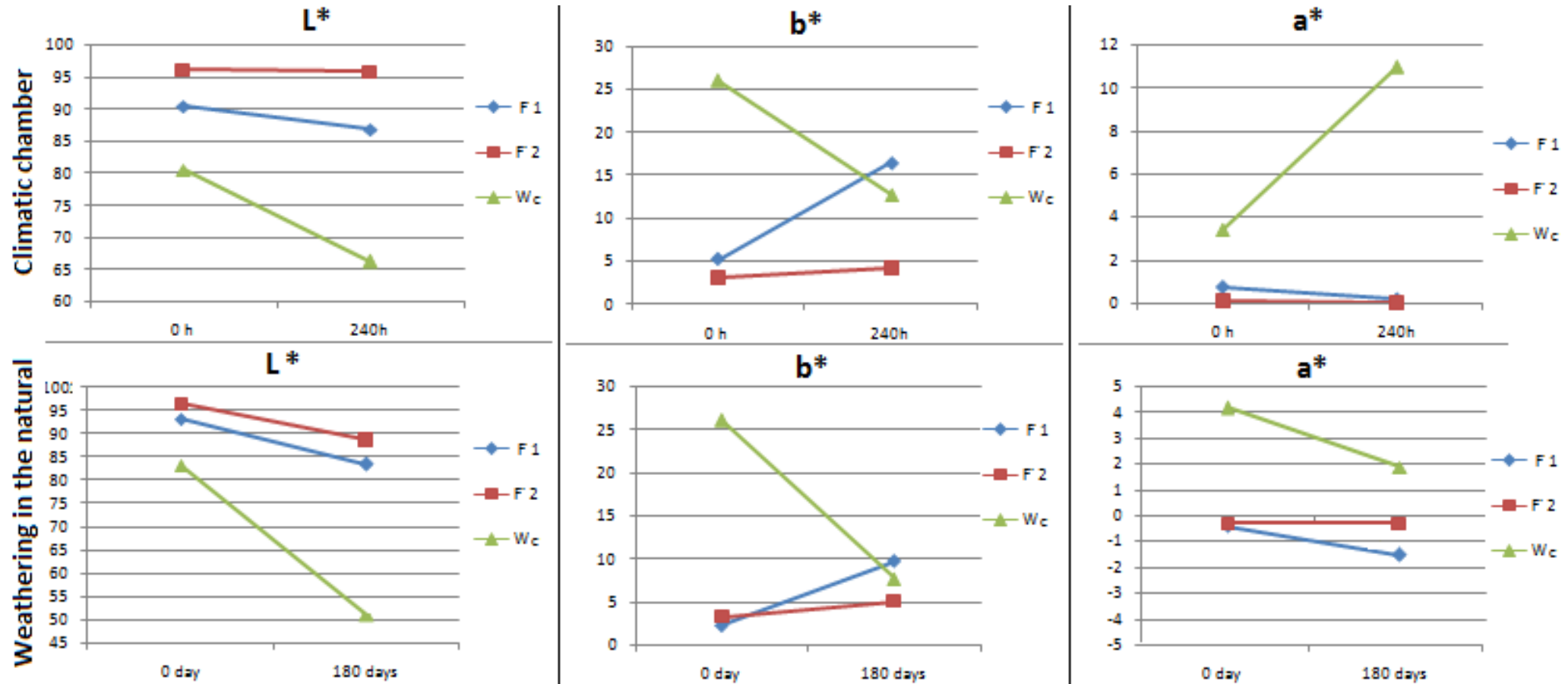


Figure 2 Effect of colour changes of parameter L\*, a\* and b\* of wood of *Pinus* sp. with different finishes.





# CONCLUSION

- ✿ It could be concluded that the results of climatic chamber are satisfactory for the assessment of wood of Pinus sp. in southern Brazil for performance natural weathering and accelerated aging.

# REFERENCES

- ✿ ASTM G 154, American Society for Testing and Materials., (2000), Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials.



# ACKNOWLEDGEMENT

