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Principal Mechanical Properties of Eastern Beech Wood (Fagus orientalis Lipsky) Naturally Grown in Andırın Northeastern Mediterranean Region of Turkey

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<u>Abstract:</u> The aim of this study was to determine some mechanical properties (compression, static bending, impact bending and shear strengths) of Eastern beech wood (Fagus orientalis Lipsky) and to compare with them other beech species. In the tests, randomly selected logs taken from the trunk 2-4 m height were obtained from trees naturally growing in Andırın (Northeastern Mediterranean region) and these logs were prepared and tested according to Turkish standards. The results showed that the mean compression strength was 606 kgcm⁻², static bending strength 1204 kgcm⁻², impact bending strength 0.85 kgmcm⁻² and shear strength 99 kgcm⁻². The relations of strengths with density were determined with regression analyses, and these were compared with other available values in the literature. As a result of this comparison, it was observed that Eastern beech trees growing in Andırın and other beeches have similar mechanical properties and density.

<u>Key Words:</u> Eastern beech (Fagus orientalis Lipsky), compression strength, static bending strength, impact bending strength, shear strength

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