

Effect of Snow Properties on Shear Strength at the Base of Snowpack

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In this study, we investigated the effect of snow properties on the shear strength at the base of snowpack. The measurements of the shear strengths in the field showed that they ranged from 0.3 to 3.8 kN/m² with an average value of 1.5 kN/m². Despite the variation, it was confirmed that shear strength was positively correlated with dry snow density and snow hardness, and negatively correlated with liquid water content. In addition, in order to understand the shear strength of snowpack under rainfall or rapid melting of snow, we measured that of snowpack sprayed with water.