

Field Test

executed by



Training Centre for Civil Protection and Disaster Relief of the Republic of Slovenia

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We tested the FR TechKewl cooling vest "INDURA / BANWEAR" with CoolPax PCM inserts from company TechNiche, in the Fire department School. Testing was conducted during regular firemen training courses of hot training. Vests were tested by three different instructors and by alternating entries on individual exercises. Frequency of entries was once with and once without a cooling vest. In one day they passed four entries, twice with a vest and once without it. One entry in exercises means exposure of the body to about 150-200 degrees of Celsius for a period of 10-15 minutes. The result of tests showed that there is less fatigue after exercises when using the cooling vest, and significantly reduce the heat load on the body. Unfortunately, content of exercises does not allow longer usage of vest, according to the conditions described but, subjective opinions of all three instructors are that would it be possible using the vest in these conditions to work somewhere **30%** more time, or in other words, using the cooling vest will help to reduce exhaustion during the heavy work in extreme circumstances.

The vest was also tested by firefighters in wildfires extinguishing action in Postojna. Their findings are that the vest is properly cooling, few problems, were caused to some individual fire fighters regarding the weight of the cooling vest, especially at longer extremely stressful physical activities with all relevant personal protective equipment.

The final conclusion is that the cooling vest is very suitable for use in operational firefighting duties with the aforementioned concerns regarding the weight.