Southampton

Vibration test services of the Human Factors Research Unit

Glove vibration transmissibility tests

Description

The Human Factors Research Unit conducts tests of the vibration transmissibility of gloves according to International Standard ISO 10819.

Gloves that achieve the vibration attenuation criteria specified in ISO 10819 comply with the Personal Protective Equipment EC Directive 89/686 and may be marketed as an 'anti-vibration' glove in Europe with the 'CE' mark.

Test requirements

The transmissibility from a vibrating handle to the palm of the hand is measured for three gloves with different wearers.

An 'anti-vibration glove' must not amplify the vibration in the medium frequency range (1.5 Hz to 200 Hz); in the high frequency range (200 Hz to 1250 Hz), the glove must reduce the frequency-weighted vibration by at least 40%.

References

International Organization for Standardization Mechanical vibration and shock - Hand arm vibration - Method for the measurement and evaluation of the vibration transmissibility of gloves at the palm of the hand. ISO 10819.



Measurement of transmissibility from a vibrating handle to the palm of a gloved hand



Transmissibility as a function of frequency for four gloves



The Human Factors Research Unit operates a Quality Management System which complies with the requirements of ISO 9001

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