With the recently acquired acclimatized tumbler, TNO’s Laboratory for Ballistics Research is now ready for testing according to the NIJ 0101.06 standard to evaluate the performance of bullet proof vests.

As an ISO 17025 accredited laboratory the NIJ 0101.06 test is now also listed as an accredited activity ensuring the quality of the test.

**BALLISTIC TESTING**

TNO’s ballistics laboratory is well known for its flexibility and short turnaround testing protocol. The NIJ requires different levels for ballistic testing. Level IIIA for instance can be completed smoothly within 4 days of testing.

If a complete test is not required because the bullet proof vest is still in a development stage, it is also possible to do pre-testing with or without the environmental (tumbler) tests.

**ENVIRONMENTAL TEST**

The effect of environmental conditioning on body armour is measured by use of a rotary tumbler. One batch of 16 vest are put into the tumbler set at 65 °C / 80% RH. One full test cycle will take 10 days to complete and after that the inserts are tested at a reduced velocity.

With the new computer controlled tumbler, both the number of rotations and the temperature can be adjusted and monitored closely.
TNO is an independent innovation organisation that connects people and knowledge in order to create the innovations that sustainably boost the competitiveness of industry and wellbeing of society.

TNO focuses its efforts on seven themes including Defence, Safety and Security: TNO works on a safe and secure society by creating innovations for people working in defence organisations, the police, emergency services and industry.

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