

3. ISO 12402 Series

A resolution to consolidate the ISO 12402 Series was taken at the ISO/TC 188/SC1 plenary meeting in London, April 2025 and was approved on 25 Sep 25. It is worth noting that the US did not support the consolidation of ISO 12402. The US has a binational series of standards (ANSI/CAN/UL 12402 series) based on ISO 12402. The US believes that these binational standards, and its goal of harmonization with the ISO standard, would be negatively impacted if the parts are consolidated.

The resulting Preliminary Work Instruction (PWI) is the result of the work of an Ad Hoc Group (AHG) to consolidate the ISO 12402 standard series. The objective is to bring together the parts of the standard in the following way:

- ISO PWI 12402-1: consolidates ISO 12402-2, ISO 12402-3, ISO 12402-4, ISO 12402-5, ISO 12402-6, and ISO 12402-8
- ISO 12402-7: Materials and components
- ISO 12402-9: Test methods

ISO PWI 12402-1 is based on the latest versions of the current PWIs under development by the committee. All parts had been revised and shared via ISO Documents.

However, ISO 12402-7 and ISO 12402-9 have not been modified by the AHG; their content remains unchanged. Only ISO 12402-1 has been adjusted as the consolidated version, but the adjustments are of an editorial nature and do not introduce any technical changes.

ISO PWI 12402-1 transposes the requirements set out for Offshore Sailing Lifejackets in ISO 12402-6 precisely. In addition, ISO PWI 12402-1 incorporates all the changes that we proposed for PFDs for use in high-speed water sports including foiling craft, personal water craft and water skiing that may require impact protection. The relevant paragraph is:

X.8.5.2.2 Impact protection

Where PFDs are designated for impact protection, the PFD shall provide a minimum level of impact protection with a mean value of ≤ 9 kN and a single strike of ≤ 12 kN and shall be tested according to EN 1621-1:2012, EN 1621-2:2014 or EN 1621-3:2018. The impact performance value shall be marked on the PFD and included in the user information supplied by the manufacturer. Removable protectors are not allowed.

The requirements set out in EN 1621, which comprises the following parts need some thought as follows:

- BS EN 1621-1:2012

Motorcyclists' protective clothing against mechanical impact. Motorcyclists' limb joint impact protectors. Requirements and test methods

- BS EN 1621-2:2014

Motorcyclists' protective clothing against mechanical impact. Motorcyclists' back protectors.
Requirements and test methods

- BS EN 1621-3:2018

Motorcyclists' protective clothing against mechanical impact. Motorcyclists' chest protectors.
Requirements and test methods

Point 1: It is debateable the PFDs, either Buoyancy Aids or Lifejackets need limb/joint (shoulder, elbow, hip, knee, forearm, leg) impact protectors. In any case the transmitted force levels are far higher than those for front and back protection. ***It would be useful to hear what the committees/experts of World Sailing think?***

Point 2: The impact attenuation/protection requirements set out in the clause concerning impact protection in ISO PWI 12402-1 above is far higher than that the set out in the EN1621 Series which only requires the transmitted force for impact attenuation to be an average of 18kN with no value in testing exceeding 24kN. In this respect the lower the number the greater the degree of protection which may mean something so bulky that it would be impractical for sailors to wear. ***The International Regulations Commission's view is that if the numbers in EN 1621 are suitable for motorcyclists, they are suitable for sailors. Again, it would be useful to hear for other committees/experts!***

A Joint Meeting_of_ISO_TC188-SC1 and CEN-TC162-WG6_is to take place at DIN in Berlin from 24 to 28 November 2025 to take the consolidation forward and I shall represent WS.

Stuart Carruthers

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