

PAS 2012 Technical Interpretation		Interpretation number	016
Title	Annex C dynamic test pass/fail criteria for wheelchairs > 85kg		
PAS Version	2012 : 2015		
Clause(s)	6.4	Strength of WTORS anchorages	
Enquiry	When dynamically testing WTORS for wheelchairs > 85kg in-vehicle, the WTORS components and the WTORS anchorages are being tested in the same test. However, although 6.4.2 (a) specifies that the SWC shall remain upright in the WAV and (b) that the anchorages shall not become detached from the WAV, there is nothing specifically to cover any of the other pass-fail criteria in ISO 10542-1 (e.g. damage to WTORS webbing or excursion limits for the chair and the ATD). Are these the same as for wheelchairs up to 85kg in mass?		
Decision	Yes. The pass/fail criteria for wheelchairs >85kg are the same as those for 85kg wheelchairs.		
Rationale	<p>It should be remembered that 6.4 only prescribes requirements for <b>anchorage strength</b>, as this is an alternative to proving anchorage strength statically via Annex E. The requirements for the WTORS <b>equipment</b> are set out in Paragraph 6.1. Paragraph 6.1.1 specifies that WTORS for chairs up to 85kg need to comply with ISO 10542-1 : 2012 (which includes excursion and post-test criteria). Paragraph 6.1.3 imposes the same requirement for WTORS for chairs &gt;85kg, but substitutes the ballastable SWC specified in Annex G of PAS 2012.</p> <p>However, there is confusion because the dynamic test for WTORS equipment for chairs &lt;85kg, is often performed out of vehicle. This leads to slightly differing requirements in practice, due to the deformable nature of a vehicle compared to a sled. For clarification, therefore, the following interpretation has been adopted when testing WTORS equipment and anchorages simultaneously in vehicle for WTORS intended for wheelchair &gt;85kg in mass:</p> <p>“When tested in accordance with Annex C, the requirements of Clause 5.2.2 and Clause 5.2.3 a), c), d), e), f) and g) of ISO 10542 – 1:2012 shall be met.” (This will be added as Paragraph 6.4.3 to the 2019 Version of PAS 2012-1).</p> <p>Note that unlike the requirement in Paragraph 6.1.2, which requires the WTORS equipment to comply fully with ISO 10542-1 : 2012, this clause removes the post-test requirement in Paragraph 5.2.3 b) of ISO 10542-1 : 2012. This is the requirement for all 4 wheels of the SWC to remain in contact with the test platform after the test. In the case of in-vehicle testing, the “test platform” is the floor of the WAV, and there have been situations where floor deformation has resulted in one or more of the SWC wheels being held slightly clear of the floor after the test.</p>		
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