

Date: 26 March 2021

Document: **Essential Safety Requirements 3 - Foam**
Slide 7

Project: **Revision of Furniture & Furnishing (Fire) (Safety) Regulations**
FW/6_21_0007

Template for comments and secretariat observations

MB/ NC ¹	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
JM AUE /7 and WS- B AMU SF and SM BFM					<p>Problem 1 How slowly foam should burn is not specified. What determines "slowly"?</p>	<p>Problem 1 solution: Specify 'slowly' and speed of spread (see solution to ESR for spread of fire above). There are methods already in place in UK and EU standards to test the flammability of foam, which could be adopted. Define "slowly". Must burn slowly and have a low rate of spread</p>	
TH NBF					<p>Problem 2 Challenge – Use of FR chemicals It may not be possible to meet ESR for foam without use of FR chemicals.</p>	<p>Problem 2 solution: Keep the current requirements for foams as these cover ignition resistance and spread of fire. Perhaps it could also be a possibility to allow a fire barrier materials (similar to current schedule 3 interliner) to be around the foam and pass the test together with the fire barrier material as this may allow use of non-FR organic latex or other foam products?</p>	
SM BFM					<p>Problem 3: Must resist ignition and not readily ignite if directly exposed to a flaming or non-flaming ignition source, flame or spark or other potential source of fire¹ What does resist ignition and not readily ignite</p>	<p>Problem 3 solution: Features and attributes need to be more closely defined as an outcome for this characteristic to provide testing regimes in determining compliance and aiding enforcement</p>	

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² Type of comment: ge = general te = technical ed = editorial

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TN SAT RA					mean (prevent, undamaged, unaffected, yielding, reluctance) and how is it determined in the context of exposure to an ignition source?	Problem 4 solution: Burn rate not clarified.	
					Problem 4: Clarification of ignition source to be used is not present.		
TN SAT RA					Problem 5: Specify ignition sources which can be used.	Problem 5 solution: Specify the burn rate required.	
PW FRE TW ORK					Problem 6: "if furniture does ignite it must burn slowly" The use of 'spread of fire' is in risk of being seen as "black humour" when the length of time for smoulder ignition to transit from smoulder to flame (StF) can be measured in hours. See BRMA booklet from 1980's: "...the substantial percentage of UK casualties in the early morning, 00.00 to 05.00 hours is a strong indication of smouldering ignition." That is exactly some hours after the ignition source was "placed" (TV closed down at 10:30 in those days!!! How slow do we need UPH to burn?		

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PW/ FRE TW/ ORK					<p>However, there is clear scientific evidence that this delay period between smoulder ignition starting and fires being discovered is exactly the time when the most serious threat to life is found.</p> <p>Smoke and Toxic Fumes (STF) remains the main killer in domestic fires involving UPH.</p> <p>One of the principal reasons for the introduction of the FFR was the fact that when open flame ignition occurs the fire can develop rapidly provided sufficient air supply is available. (It also burns more completely and thus with lower toxicity)</p> <p>Fundamentally, fires in UPH tend to develop into life threatening scenarios where escape is more important than "burning slowly"</p>		
					<p>Problem 7:</p> <p>This item seems to have missed the point that a great many other types of filling material used in UPH and it is the combination of materials that represents the problem. Unless we can make comparative assessment to ensure that individual types are not a problem then we are directing the responsibility for safety to the outer textile: which is a material that by design will ignite easily.</p> <p>Relying on IFRM will not allow flexibility in that choice of materials process.</p>	<p>Problem 7 solution:</p> <p>Either this ESR must include all fillings or a separate ESR for "other fillings are available"?</p>	

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PW FRE TW ORK					<p>Problem 8:</p> <p>The ESR for foam probably represents the greatest deviation from the original FFR of any of these proposals.</p> <p>It is welcome that the ignitability of a specific type of material which exists as a thin film surrounded by air that will easily burn when ignited is recognised as an ESR.</p> <p>However, the reason that a very strong level of performance was originally required (IS 5) has never been made public and this raises questions when re-evaluating the testing regime. It would be simple to reduce the level of performance of the foam to reduce demand for CFRs. It was probably the case that the consequences of the foam igniting were determined as being so great that such a severe level of performance was chosen.</p> <p>Using a "FINAL ARTICLE" basis for determining safety poses real questions for the components used in manufacture.</p>	<p>Problem 8 solution:</p> <p>This will be a particularly difficult question for FW6 to resolve.</p> <p>Solution: Baseline minimum levels of ignition resistance for all components and with some control over the effect of different combinations of components would go some way to avoiding the problem.</p>	
KK CIA					<p>Problem 9:</p> <p>Foam used as a filling must fulfil the following conditions:</p> <ul style="list-style-type: none"> must resist ignition and not readily ignite when directly exposed to a flaming or non-flaming ignition source or flame or 	<p>Problem 9 solution:</p> <p>Define the components of furniture covered in each ESR and establish flammability requirements for each component separately</p>	

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					<p>spark or other potential source of fire</p> <ul style="list-style-type: none"> • must burn slowly and have a low rate of spread <p>The rationale for this ESR is unclear when considered along with the ESR on ignition prevention for furniture. above. Foam fillings are an integral part of any upholstered furniture and would therefore presumably be subject to the same conditions.</p>		

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