

ESFA SCHOOL BUILDING PROGRAMME

**IMPORTANT CHANGES TO ALL
ACTIVITY SPACES**

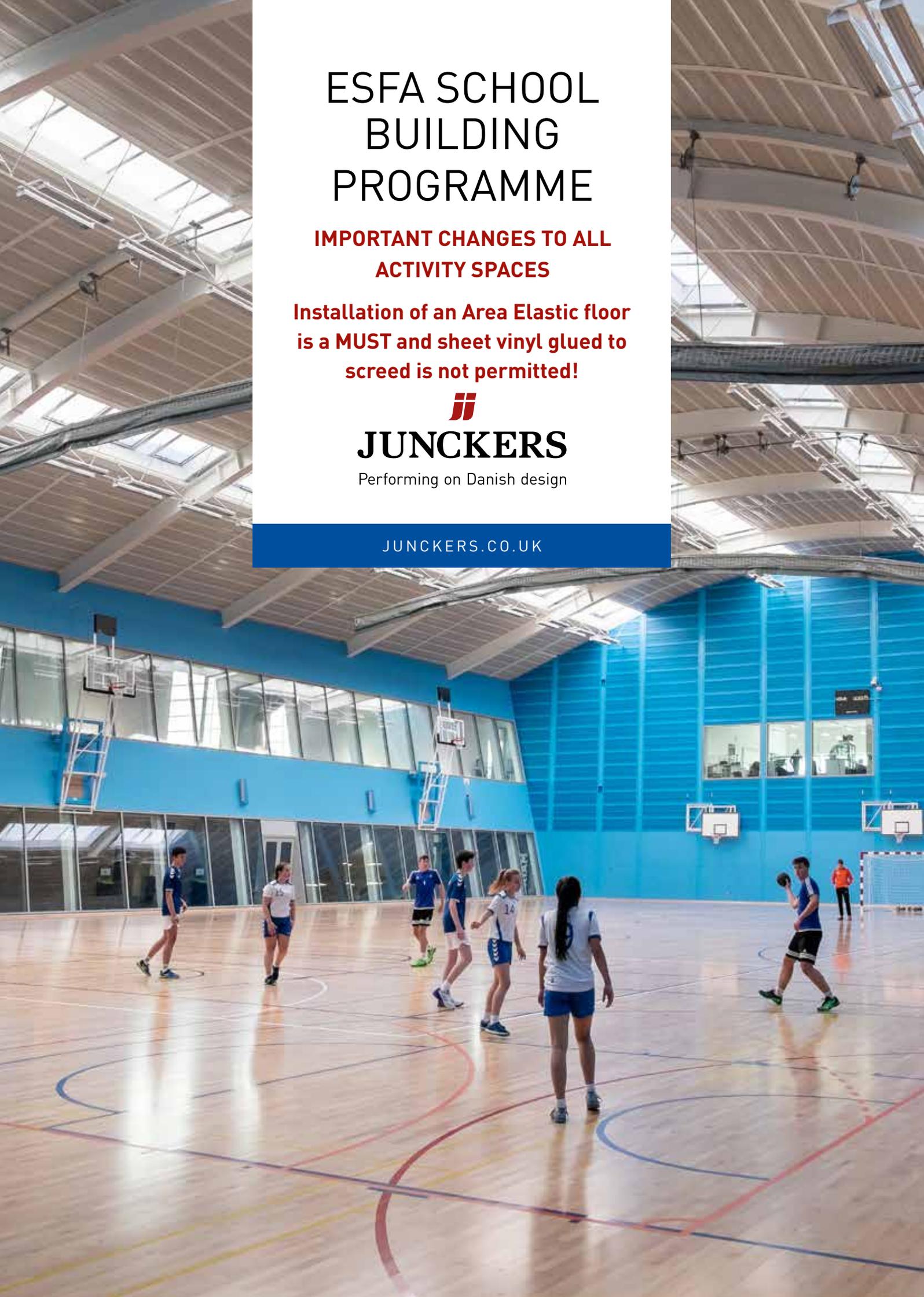
**Installation of an Area Elastic floor
is a MUST and sheet vinyl glued to
screed is not permitted!**



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SHEET VINYL GLUED TO SCREED IS NOT PERMITTED!

Under the ESFA's Schools Building Programmes all sports and activity hall floors MUST be AREA ELASTIC floors, Category A3 or A4 under EN 14904.

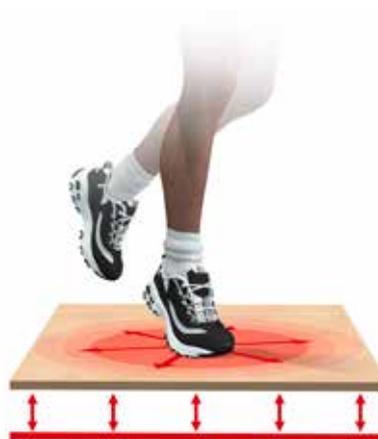
Sheet vinyl glued to screed is not permitted!

The rules also apply to the following ESFA-led projects:

- Priority Schools Building Programme (PSBP)
- SEN Schools
- Free Schools
- University Technical Colleges
- Studio Schools
- Academies Capital Maintenance funded schemes
- Local authorities
- Multi Academy Trusts
- Diocesan Bodies
- 6th Form Colleges
- Further Education Colleges
- Primary Schools
- Secondary Schools

The ESFA requires all sports, multi-purpose and activity floors to be area elastic

AREA ELASTIC floors normally use a "sprung" batten undercarriage and a timber deck of some kind- often prefinished solid hardwood or a synthetic covering bonded to ply or chipboard. When a player lands on the floor the surface of the floor deflects over a relatively wide area- hence "area elastic". Two categories of area elastic floor are approved by the ESFA, Categories A3 and A4. They define slightly different levels of shock absorption, and surface deflection, see Table 1 below.



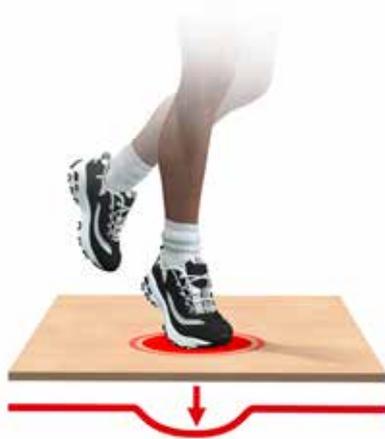
AREA ELASTIC: *The floor surface deflects over a relatively large area - as with all Junckers sports floor systems.*

Test Criteria	Category A3	Category A4
Shock Absorption	≥ 40 ≤55%	≥ 55 ≤75%
Vertical Deformation	≥ 1.8mm ≤ 3.5mm	≥ 2.3mm ≤ 5mm

Table 1. Sports Floor Performance Requirements Under EN 14904

The ESFA does not allow sports, multi-purpose and activity floors that are point elastic

POINT ELASTIC floors are typically foam-backed vinyl, where the floor deflects at the point where the players foot makes contact with the floor.



POINT ELASTIC: The floor surface deflects only where the foot makes contact with it. This can "trap" the foot and restricts movement Eg. Vinyl, linoleum, P.U. or rubber glued to screed.

Test Criteria	Category P1	Category P2	Category P3
Shock Absorption	$\geq 25 \leq 35$	$\geq 35 \leq 45$	≥ 45
Vertical Deformation	$\leq 2.0\text{mm}$	$\leq 3.0\text{mm}$	$\leq 3.5\text{mm}$

Table 2. The shock absorption provided by Point Elastic floors is generally of a lower level than for Area Elastic floor systems.

AREA AND POINT ELASTIC FLOORS - EXAMPLES

The performance characteristics of Area and Point Elastic floors are defined in European Standard EN 14904 and there are different categories for each. They are categorised mainly according to their shock absorption and the amount by which the surface deflects under load. (See pages 2 and 3). The most commonly found examples of each type are:

AREA ELASTIC



Suitable for Sports Multipurpose and activity halls

Including:

Sports Halls, Activity Halls, Dance, Drama and Fitness Studios, Multi-purpose and Dining Halls, Primary School Studios Small Halls and Assembly Halls

EXAMPLES OF AREA ELASTIC FLOORS

- Solid hardwood on battens
- Solid hardwood on resilient underlay
- Junckers BluBAT
- Junckers UnoBAT 45
- Junckers UnoBAT 62+
- Junckers New ERA UnoBAT
- Junckers Clip System

JUNCKERS VINYL SPORT ON:

- Cradle levelling system
- Low profile batten system
- J-Lock levelling system

POINT ELASTIC



NOT suitable for:

Sports, Multi-purpose or activity floors in ESFA funded project

EXAMPLES OF POINT ELASTIC FLOORS

- 2mm Solid Vinyl on screed
- 4mm, 6mm, 8mm or 12mm Foam-backed or cushion vinyl on screed
- Polyurethane resin with foam underlay on screed



You will be in breach of the ESFA's design rules if you install a point elastic floor system

...such as sheet or foam-backed vinyl glued to a screed, as this is deemed not to be suitable for use as an activity or performance floor. Table 3 below is an extract from the ESFA's Technical Annex 2D: Internal Elements and Finishes (November 2017) It shows that all floors in sports and multi purpose halls must be Area Elastic Category A3 or A4 systems.

BS EN 14041:2004 Essential characteristics always apply for rubber or vinyl Fire and smoke resistance dependent on fire strategy Min reflectance value (LRV) for all floors = 0.05 (5%)			Slip Resistance (Ramp test rating, or R value)	Slip Resistance Value (SRV) and surface roughness	BS EN 14041:2004 Electrostatic Rating	Heat Resistance	Area elastic (A3) sports floor to BS EN 14904: 2006	BS EN ISO 10874:2012 European Flooring Use classification (for durability)
Floor Finishes	Description	Possible materials (to be proposed by Contractor and agreed by Employer)						
Type F6	multi-purpose	 durable elastic composition, lino, rubber, semi-sprung timber or vinyl	R9	N/A	No	No	A3 or A4	Commercial 34

Table 3 (ESFA Technical Annex 2D) – Minimum Performance Requirements – Floor Finishes. See requirement for A3 or A4 category flooring for multi-purpose floors (Type F6).

IN THEIR GENERIC DESIGN BRIEF, SECTION 2.3.12.2 THE ESFA STATE:

“Where the hall is used for a wide range of activities such as performance and PE, as well as dining (most often in a primary school or a special school) such spaces shall be designed to be able to accommodate all activities specified.”

This means that if the hall is principally an assembly or dining hall but is also used for PE or similar activities, it too must have an area elastic A3 or A4 category floor.

Here is an extract from an email issued by the ESFA which clarifies their rules for all “Activity Spaces”. This was issued when it was found that some designers were specifying point elastic floor finishes in areas where the design rules did not permit them to be used.

Re:- ESFA SCHOOL BUILDING PROGRAMME

In the current version of our Technical Annex 2D, in sections 7.2.1.4 &5 we specify that floors to all activity spaces should be to A3 or A4 floors and that where there will be bleacher seating, any vinyl should be homogenous. We understand that it is possible to achieve A3 or A4 finish with vinyl, though I am not sure that any A3/A4 vinyl is homogenous.

There are also projects going on site currently that were started under the old FOS and so only have to conform to that specification which was P3, and you may be seeing these.

As for policing the situation, we rely on our Technical Advisors, who are external contracted consultants, to monitor the design and construction to ensure that all of our technical requirements are met. We get to review the specification and floor finish drawings prior to contract close and at this stage the DfE’s Design Advisors will do their best to look out for this aspect and ensure that the right specification is being applied.

The question of what the consequences of not meeting our requirements is beyond my remit and I cannot give an answer to that question but we would only become aware of the situation if someone was injured as a result or if there were a major failure, both of which situations would lead to some action.

I hope that I have answered your current query. I have attached a link to the location of our current documentation below.

<https://www.gov.uk/government/publications/output-specification-generic-design-brief-and-technical-annexes>

Design Advisor | Technical Support | Capital Directorate | Operations Group
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Department
for Education



WE WILL HELP YOU TO SPECIFY THE RIGHT AREA ELASTIC FLOOR SYSTEM

Junckers is one of the most experienced designers and manufacturers of area elastic floor systems. Our floors are installed in schools around the world, as well as being used in leisure centres and major international sports venues for Commonwealth and Olympic events. Our solid hardwood floors have a life span of over 60 years and are fully guaranteed. We design and manufacture all the systems that we sell, therefore when you specify a Junckers floor you can be sure that all materials used will be fully tested and fit for purpose. We have valid test certificates to EN 14904 which show that the systems we offer comply with the standard.

At Junckers we take pride in offering systems that we have fully designed, tested and manufactured ourselves. Every component and raw material is closely specified so we know that what is delivered to the client is the same high quality product every time. We do not purchase systems from other manufacturers and "own brand" them, and we do not use generic performance test certificates as each system we offer is individually tested and certified by an independent testing laboratory.

Find information on Junckers Area Elastic Sports Floor Systems at:

www.junckers.co.uk/sports-flooring/fixed-sports-flooring-solutions



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