

STM STUDIO SUPPLIES *By professionals for professionals*

18 Dawson Street Naremburn NSW 2065 T: 02 9439 9060 F: 02 9439 9063 E: sales@stmstudiosupplies.com W: www.stmstudiosupplies.com

Concrete floors and other solid surfaces can sometimes create an array of bodily injuries as they are not "resilient". **A dance and performance floor needs to be able to absorb and return energy** whilst also providing an even and consistent dampening effect across the entire surface.

Not all sprung floors are created equal. A wrestling ring is different from a gymnasium, which in turn has different requirements from a dance studio.

The keys to this are the dynamics of the "spring" or cushion and surrounding air mass.

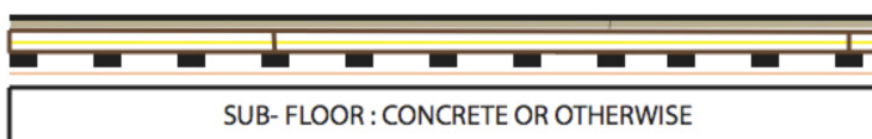
Paying particular attention to DIN Standard 18033 Part II 1991 and, seeking a durometer of 40-45 (to achieve a minimum 53% shock absorption), a 2.3mm standard deflection and a 15% average deflection, **STM Studio Supplies** extensively tested available proprietary products. Finding that while each had their own designated advantages - such as impact isolation or isolation of structure borne noise and vibration - they were not necessarily appropriate to dance.

STM Studio Supplies finally selected a cross-linked, expanded foam based ethylene vinyl acetate copolymer resin. This resin has a particularly fine cell structure which serves to increase its energy absorption and in particular, its rebound ability.

100mm x 100mm x 15mm pads at 300mm centres directly under plywood work equally as well at 450mm centres in a 75 x 100mm format under timber floor battens. Alternative sizes and thicknesses are available on request.

STM Sprung Floor Profile

- Vinyl or timber flooring layers as required
- 15-17mm flooring grade tongue and groove plywood in a Brick Pattern in opposing direction from layer above
- STM Studio Supplies 15mm EVA Impact Cushions adhered to plywood or batten layer with Bostik Matrix FC or equivalent
- 100-200 UM builders plastic with duct tape joins



*Not to scale
 DWNG:STFP 15/06/09*

***"Not all floors
 are created equal.
 Neither are
 their purpose.***

***The needs of
 a performance
 dance floor are
 not the same as
 a gymnasium or
 a classroom.***

***We have the
 solution."***



Simple and affordable

This system was in turn tested extensively and has now been **in use across Australia and Internationally in Dance Studios, Secondary Schools, and Performance Stage environments since 2004.**

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Technical Data

STM Studio Supplies Sprung Floor Impact Cushions are manufactured using resins and pigments that are considered safe - up to food grade - and are usually considered to be chemically non-reactive.

Properties

- *Light and age resistant*
- *High tear strength*
- *Especially suited for adhering to flooring surfaces*
- *No shrinkage*
- *Resists high shear stresses*

PROPERTY	TEST METHOD		UNITS
DENSITY	JIS K6767-1976 ASTM D 3575-91	METHOD A	
TYPICAL SIZE	TOLERANCE -0+1%		100 X 100 X 15 MM
THICKNESS			
HARDNESS READ AFTER 2 SECONDS	INTERNAL (JIS'C) INTERNAL (SHORE A)	CALCULATION	25-30 DEG N/A
TENSILE STRENGTH	JIS K6767-1976 ASTM D 412-87	METHOD A DIE A	800KPA
TEAR STRENGTH	JIS K6767-1976 ASTM D 624-86	DIE B DIE C	4.5KN/M
ELONGATION AT BREAK	JIS K6767-1976 ASTM D 412-87		250-300%
COMPRESSION SET 22 HRS AT 23DEG C+ 24 HRS RECOVERY	JIS K6767-1976 ASTM D 3575-91	25% DEFL SUFFIX B	<5
COMPRESSIVE STRENGTH (25%)	ASTM D 3575-91	SUFFIX D	60
WATER ABSORPTION	JIS K6767-1976		0.002 G/CU.CM
THERMAL CONDUCTIVITY	ASTM C 518-76		W/M.DEG C
SERVICE TEMPERATURE	MIN/MAX		

STM Studio Supplies Sprung Floor Impact Cushions may burn at or above the flashpoint, which is estimated at 250°C.

Materials Safety Data sheets available on request.

Please contact us for any further information.