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**Herculan AE XR** sports surface are eco-friendly, seamless and cushioned multifunctional floors with combined elastic properties.

**Herculan AE XR** sports surfaces meet all the latest European Standards for multi purpose indoor sports surfaces, the EN 14904:2006. **Herculan AE XR** quality sports surfaces are accredited with the CE Certificate of Conformity. The **Herculan AE XR** systems are listed as certified and approved sports floors in the Dutch Olympic Committee's sports flooring list.

**Herculan AE XR** sports floors are certified by the International Handball Federation [IHF]. Herculan Sports Surfaces BV is also a FIBA Associate [FIBA].

The **Herculan AE XR** systems passes the German AgBB/DIBt emission tests and is rated as safe for indoor building materials.

This combi elastic, non-porous, seamless sports flooring system provide a high performance system with excellent properties as required in most demanding sports.

Due to it's high mechanical strength and elastic properties of the Herculan EX 800 thickness layer and the outstanding wear resistance of its Herculan PU 100 W or PU 145 top layer, this tough and durable system is also multifunctional.

All Herculan Sports Surfaces are easy to maintain and can be resurfaced quickly and economically when required.





<b>Types of Sports Surface</b>	Multi purpose combi elastic indoor sports surface.
<b>Aim</b>	Suitable for all indoor sports and multifunctional use, see Herculan System Selection Chart.
<b>Description of the Sports Surface</b>	2 mm of coated PU layer on top of an area elastic sub-base.

### HERCULAN AE XR SYSTEM PROPERTIES

#### Athlete Surface Interaction

System	Vertical Deformation [EN 14809, DIN 18032-2]	Force Reduction [EN 14808, DIN 18032-2]
Herculan AE XR	2.5 mm	51 %

#### System Properties of the Sports Surface

Vertical Ball Behavior [EN 12235 – DIN 18032-2]	95 %
Compression Set [ASTM D-395-B]	1.9 %
Compression Strength [N/S1.1]	> 400 N/mm <sup>2</sup> [> 400 MPa]
Resistance to Impact [EN 1517-1999]	> 16 Nm
Resistance against Static Load [24 hours]	25 kg/cm <sup>2</sup>
Resistance to Indentation [EN 1516]	< 0.11 mm
Resistance to a Rolling Load [EN 1569:1999]	> 1500 N, < 0.5 mm
Resistance to Fire [DIN 51960]	Not flammable – Class 1
Resistance to Fire [BS 476 Part 7:1997]	Not flammable – Class 3
Resistance to Fire [EN ISO 11925:2002 & 9239-1:2002]	B <sub>FL</sub> – S1
Resistance to Stubbed and Burning Cigarettes [EN 1399]	Resistant. No damage
Formaldehyde Emission [EN 717-1]	Class E1. No Formaldehyde
AgBB: Health-related Evaluation of Emissions of Volatile Organic Compounds [VOC and SVOC]	Approved for Indoor usage

#### Properties of the Herculan EX 800 Base Layer

Surface Hardness [DIN 53505, EN ISO 868]	Shore A = 76
Tensile Strength [EN ISO 527-1, DIN 54455]	11 N/mm <sup>2</sup> [11 MPa]
Elongation at Break [EN ISO 527-1, DIN 54455]	> 190 %
Tear Resistance [DIN 53515]	25 N/mm

#### Properties of the Herculan PU 145/PU 100W Surface Layer

Surface Texture [N/F 12.1 – Macro, Micro, Porosity]	Fine, Polished, Closed
Surface Color	See Herculan Color Chart
Resistance to Wear [EN ISO 5470-1, ASTM C-501]	Taber H18 1 kg 1000 cycles 134 mg
Gloss [EN ISO 2813]	< 3 %
Friction [EN 13046-4]	Dry 90 at 20°C
Friction [EN 14837 Leroux]	Dry 0.7 at 20°C
	Wet 0.4 at 20°C
Sliding Qualities [N/F 6.1]	Dry 0.4 at 20°C
	Wet 0.2 at 20°C
Light [Color] Fastness [DIN 54004]	8 [Excellent]
Specular [Light] Reflectance [EN 13745]	0.1 – 0.3 [Color dependent]

#### Herculan Sports Surfaces B.V.

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