

## Airlastic layer 602

Material Data Sheet

### Product Description & Properties



**Shockpad for artificial turf systems**, applied in situ, with a proprietary carrier mat with dimples that enables air cushioning and provides improved shock absorption. Combining rubber from recycled tires and cork provides a product that complies with FIFA requirements for shockpads.

The introduction of cork in a 100% rubber layer improves the values of Triple A in shock absorption and energy restitution, providing an overall better performance of the field.

### Application

The introduction of an in situ shockpad between the stone or macadam base and the artificial turf provides comfort to players, optimising sporting functionality for the players and the sustainability of the system.

Cork is a natural component that improves energy restitution values besides it helps the turf to be more elastic and oxygenated. It is the best natural inert material and does not absorb moisture, it simply conserves it on the surface.

### Physical and mechanical properties

Cork components	Natural cork
Cork granule size (mm)	2–4
Cork granule bulk density (kg/m <sup>3</sup> ) <sup>1</sup>	65–85
Rubber granule size (mm)	0–4
Rubber granule density (kg/m <sup>3</sup> )	340–430
Moisture content (%) <sup>2</sup>	<12
Average total thickness (mm)	20–25
Average thickness of dimpled carrier mat (mm)	10/4

(<sup>1</sup>) ISO 2031

(<sup>2</sup>) ISO 2190

## Benefits

### Sport function

- Excellent shock absorption, avoiding player injuries from falls
- Reduces players' physical fatigue
- Gentle on joints, muscles, tendons and ligaments
- Excellent results in terms of ball bounce and energy restitution

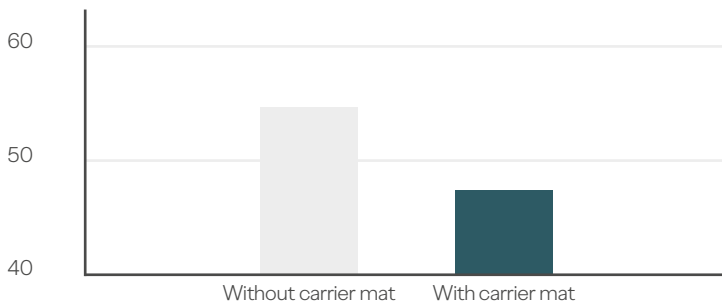
### Construction

- Lower water absorption
- Conserves temperature during winter
- Decay resistant
- High elasticity and compression resistant
- Fast and easy installation
- At the end of the turf system's working life, the existing Amorim Sports in situ shockpad can be reused in a new system\*

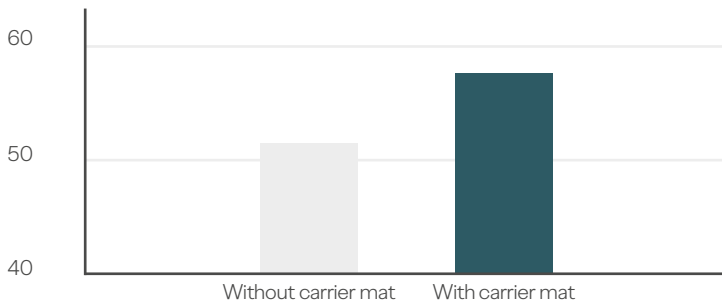
### Sustainability

- Cork is a 100% natural component that acts as a CO<sub>2</sub> retainer
- Promotes circular economy
- Carbon negative contribution to artificial turf system

## Energy Restitution (%)



## Force Reduction (%)



Due to the product being installed in situ, Amorim Sports is not responsible for the results of the material's force reduction, energy restitution, vertical deformation and CFH. All values are specific for a formulation developed by Amorim Sports and may vary according to the proportions used.

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## Strength

Tensile strength (MPa)<sup>1</sup> > 0.15

(<sup>1</sup>) ASTM F152

## Performance

Force reduction (%)<sup>1</sup> 60.80

Energy restitution (%)<sup>1</sup> 42.53

Vertical deformation (mm)<sup>1</sup> 8.79

Critical fall height (m) (Head Injury Criterion - 1000)<sup>2</sup> 1.3<sup>3</sup>

(<sup>1</sup>) AAA - Advanced Artificial Athlete

(<sup>2</sup>) EN 1177

(<sup>3</sup>) Including a 60 mm synthetic turf with 20 mm of cork infill

## Drainage and isolation

Water permeability (mm/hr)<sup>1</sup> 1385

(<sup>1</sup>) EN 12616

\* Due to the product being installed in situ and the different options that can be considered regarding artificial turf and infills, Amorim Sports cannot control the installation conditions and therefore is not ultimately responsible for the final product lifetime.



The mark of responsible forestry

