



## Honcho Supplies Boss Mats

Honcho Supplies Boss Mats are constructed from 100% PVC. PVC is the most important polymer used in building and construction applications. It has been a material of choice for over 60 years because of its technical versatility, performance and cost effectiveness.

PVC is durable, making it suitable for long-term applications such as pipes and fittings, cable insulation, floor coverings, window profiles, cladding, roof membranes and in our case walkway mats. PVC makes a major contribution to the quality, safety and cost-effectiveness of construction materials, as well as helping to reduce the environmental impact of completed projects.

Over 60 per cent of Australia's annual PVC production is used in this sector. PVC has a versatility that helps it meet modern and future design needs. In addition to new projects, PVC is also widely used in refurbishment where it often replaces traditional materials such as clay and wood.

It is one of the most researched and thoroughly tested building materials in the world. It meets Australian and international standards for safety and health for the applications for which it is used. PVC building products have numerous energy and environmental benefits. Since the late 1980s, many life-cycle evaluations have been completed on PVC building products, often comparing them to products made of other materials.

PVC products are found to perform favourably in terms of:

- ✓ energy efficiency,
- ✓ thermal-insulating value,
- ✓ low contribution to greenhouse gases,
- ✓ product durability and
- ✓ life cycle advantages.

## Life Cycle Assessment

Globally, at least 60 LCAs have been conducted on a range of PVC products since the mid 1980s. There is usually no clear 'winner' as all materials/products have strengths and weaknesses, but there are often some products that perform worse in all life cycle impact categories. To the best of our knowledge, assessments of PVC have never produced that outcome. The findings have generally been neutral to favourable for PVC.

LCA findings are of global interest and the Vinyl Council ensures the data is passed on to all industry and stakeholders. Many noteworthy reviews of PVC LCAs have been conducted and released. In particular:

† The 2004 European Commission (EU) review 'Life cycle assessment of PVC and of principal competing materials' confirms that, in its major applications, PVC is as good an option as its competitors.

† The Natural Step's evaluation of the sustainability of PVC across its life cycle found: 'Many life-cycle analyses (LCAs) have been carried out upon various applications of PVC; probably more than for any other material. Inevitably they are of differing credibility, although the overall weight of them suggests that PVC is no more environmentally unacceptable or unsustainable than alternative materials (including "natural" ones) in the short to medium term.'

*Dr. Mark Everard et al., 2000, 2020 Vision Series No. 2: PVC and Sustainability*

† The Australian Plastics and Chemicals Industries Association (PACIA) commissioned Australia's pre-eminent scientific organisation, CSIRO, to conduct an independent review and report on whether or not PVC building products were any more harmful to the environment than alternative materials. After a thorough review of the scientific evidence the CSIRO concluded that: 'The adverse environmental effects of using PVC in building products are very small, and no greater than those for other materials.'

*R Smith, 1996, The environmental aspects of the use of PVC in building products, CSIRO*

† Updated editions of the CSIRO review were published in 1998 and 2001, the latest of which states: 'It can be concluded from the evidence sighted in this and preceding reports that the possible adverse human health and environmental effects of using PVC in building products is not greater than those of other materials.'

*P Coghlan, 2001, A discussion of some of the scientific issues concerning the use of PVC. An update of the CSIRO report "The environmental aspects of the use of PVC in building products, Second Edition, 1998" CSIRO Molecular Science*



## Honcho Supplies Boss Mats

### Air Quality

Whilst some synthetic materials emit VOCs (volatile organic compounds) particularly during installation, Honcho Supplies Boss Mats have negligible amounts of VOC emissions. Testing on our products has shown total VOC emissions to be well within European and Green Building Council standards.

### Recycling

PVC is relatively easy to recycle and this is a fairly well established practice in many countries around the world as it can be recovered in sufficient quantities and quality.

The two main ways that PVC can be recycled:

- ✓ Mechanical recycling, which comprises of grinding the product up and turning it into other PVC products, or;
- ✓ Feedstock recycling, which is a chemical process such as pyrolysis, hydrolysis and heating to convert the waste into its chemical components

Some strategies to deal with end of life PVC are:

- ✓ Seek local/ national Vinyl and PVC council affiliations
- ✓ Collaborate with local recycling organisations
- ✓ Sort and measure the PVC as accurately as possible

### Further LCA References:

Life Cycle Meta studies:

- t *TNO (1995) PVC in Europe: Environmental Concerns, Measures and Market Study carried out for the Commission of European Communities*
- t *R. Smith (1996) The environmental aspects of the use of PVC in building products, CS/RO Division of Chemicals and Polymers.*
- t *P.Coghlan (2001). A discussion of some of the scientific issues concerning the use of PVC, CS/RO Molecular Science.*
- t *Dr Mark Everard et al (2000) 2020 Vision Series No. 2: PVC and Sustainability, The Natural Step UK*
- t *PE Europe (2004) Life Cycle Assessment of PVC and of principal competing materials, Commissioned by the European Commission*
- t *LEED Technical & Scientific Advisory Committee (TSAC) PVC Task Group (2007) Assessment of the Technical Basis for a PVC-Related Materials Credit for LEED, US Green Building Council.*

### Recycling Facility references:

- t Suez ([www.suez.com](http://www.suez.com))
- Recofloor ([www.recofloor.org](http://www.recofloor.org))
- ▮ Aspire ([www.aspiresme.com](http://www.aspiresme.com))
- Sorema ([www.sorema.it](http://www.sorema.it))
- ENF ([www.enfrecycling.com](http://www.enfrecycling.com))
- ▮ Cotrep ([www.cotrep.fr](http://www.cotrep.fr))