

Should nylon pile carpets be banned in Australia and New Zealand ?

The answer in my opinion is **YES**.

*This document contains the current opinion of Greg Galt
(Managing Director of Supertuft Pty. Ltd.)*

Health concerns:

Concerns for public health, the health of children and their ability to develop normally and concerns for our natural environment prompt me to express this opinion.

Nylon is highly flammable and releases asphyxiant gases such as Hydrogen Cyanide (HCN) if burned. Therefore Nylon pile carpets may only comply with building regulations if fire retardant chemicals are applied. Stain resist chemicals are among other chemicals also often applied to nylon pile carpets.

My concern is that the chemicals used in making Nylon pile carpets may present a substantial health risk.

“Eliminating Toxics in Carpet: Lessons for the Future of recycling”

October 2017 produced by the Healthy Building Network is a report that I believe all carpet industry participants should read.

Extracts of this report appear below in *italics*.

“Although most carpets contain substances of concern, they are often labelled with product certifications that imply safety. However most of the certifications do not currently address the significant toxicity issues for carpet identified in this report. Some commonly used certification standards reward recycled content and ignore toxic content. Some including the industry – led Green Label Plus certification, conduct “indoor air quality” testing that is limited in scope to VOC emissions”

The consumer health information on the Carpet Institute of Australia website 'Consumer Health Information' concentrates on indoor air quality and emissions of volatile organic compounds.

The website states; "With good room ventilation, new carpet V.O.C. emissions will drop below most indoor air quality criteria within a few days." Volatile Organic Compound emissions are not the concern of this document.

It is the toxic fire retardants and the stain resist treatments that I believe are reasons to ban the use of nylon pile carpet.

It is hard to assess how harmful the chemicals "given – off" by a particular nylon pile carpet may be. It may be impossible to accurately assess their contribution (if any) to rising rates of blood cancers, autism (now estimated to be 1 in 59 children in the U.S.A) and other diseases as we are often exposed to many volatile organic compounds and toxins both in and outside of our homes.

"Halogenated flame retardants are among the chemical industry's most notorious products. They are linked to hyperactivity, learning disabilities, reproductive harm and cancer. Common replacements for the halogenated flame retardants are organophosphate flame retardants, which are linked to endocrine disruption and infertility."

"Historically the carpet industry used long - chain PFAS – mainly perfluorooctane sulfonic acid and perfluorooctanoic acid (PFOS and PFOA, C-8) – in the production of polymers for stain repellent treatments. Long chain PFAS are widely acknowledged as being very persistent in the environment and human blood."

I remain concerned about chemical substitutes that may pose the same, similar or worse dangers to long - chain PFAS that have since been replaced by short – chain PFAS by some nylon manufacturers.

If you are unsure how easily these chemicals actually rub off on the user then **do a simple test**. Rub **one hand** vigorously across a nylon carpet. Then rub your fingers together on each hand separately to feel the difference between the two. You will detect a "residue" on your fingers from many nylon carpets.

“Replacing a known toxic chemical with a chemical having similar hazards is often referred to as “regrettable substitution”. Short - chain PFAS are now in the sights of environmental health scientists and the healthy building community.”

“Children are likely to be exposed to PFAS through hand-to-mouth transfer from treated carpet. According to the U.S. Centers for Disease Control (CDC), “Major types of human exposure sources from PFAS include ... Hand-to-mouth transfer from surfaces treated with PFAS- containing stain protectants, such as carpets, which is thought to be most significant for infants and toddlers” The CDC also warns that people can inhale PFAS in dust released from carpet.”

Environmental concerns:

Informed people worldwide are trying to reduce the production of greenhouse gases, the pollution of our air and pollution by micro plastics and hazardous chemicals that are washed into our waterways and eventually the sea.

Nylon pile carpets are made from refined oil products and therefore are contributing to the production of greenhouse gases and air pollution.

Concerned citizens and politicians have been pushing for reduced use of single use plastics in Australia and New Zealand. Many of these people may not be aware that the massive quantities of nylon used in the production of nylon pile carpet may be a much larger source of non – biodegradable waste, a source of massive amounts of micro plastics, fire retardants and stain protectant chemicals that find their way into our waterways and oceans.

The idea that manufacturers of nylon pile and other synthetic pile fibre carpets may recover the bulk of these carpets sometime in the future for recycling is in my opinion a ‘fantasy’. Carpets often have a long life. By the time the carpet is ready for collection the company may have closed or its assets been sold to a new venture to avoid further costs.

Recovered nylon would be contaminated by flame retardants and stain - resist chemicals and also be in short fibre form making it dangerous and difficult to reuse for any safe purpose.

One nylon pile manufacturer's web site suggests that carpet could be used as a "source of energy". That is to say that it could be burned. This should never be allowed to occur anywhere as the carpet would first have to be stockpiled (a high risk situation) and then would release toxic gases when burned. See "Fire Toxicity – What's in the Smoke" – University of Central Lancashire, Preston UK

We have recently seen in Melbourne how multiple toxic waste collection facilities can 'mysteriously' catch fire and cause enormous environmental damage, illness and death.

Our company manufactures carpet with a woollen pile.

A carpet with a woollen pile requires no additional flame retardant or stain resist chemicals to be marketable. Wool is naturally flame resistant, is a renewable resource and bio - degradable once the product life has expired.

I call on all carpet industry participants to consider the concerns described in this document and to make the shift to **safe natural fibres** such as wool.

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Yours faithfully



GREG GALT
MANAGING DIRECTOR