Review of standards and specifications for recycled content products – examples

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Standards and specification report

Potentially illustrative case-studies that are contained in the report

A key barrier identified relates to manufacturers that have access to cheaper virgin alternatives which means they do not need to incur the cost for recyclate. This is changing as society demand that the products they acquire re-use resources rather than use virgin materials. Some companies have already stated a % of recycled material will be used in their products, however the time frames they state will not help in the current situation. There are no known impediments to governments mandating a % of recycled material in their procurement practices.

There are multiple examples of Australian businesses working to develop standards that imported products fail to meet, but which are used because there was no checking of their claimed standard, or they were specified by parties able to flout their obligation to adhere to these standards. This not only fails the test of addressing the market failure, it materially disadvantages Australian companies that invested in the standard development process – effectively a double-hit.

The uptake of recycled content in buildings and infrastructure is linked to the quality of the recycled materials. This can be supported through improving the collection and sorting of recycling, improving the productivity of the recycling sector and investing in recycling infrastructure to ensure market readiness of recycled products.

Standards Australia has produced a number of documents relating to the re-use of plastics, polymers and there are a specifications for the use of recycled crushed glass as well as crumbed rubber for application in infrastructure projects and the recycling of wood and timber in building and construction projects that have been developed by industry associations as well as CSIRO and AustRoads etc. Most notably, the Australian Council of Recycling has developed a number of specification documents relating to PVC, LLDPE, LDPE, HDPE and other beverage container and packaging materials as well as paper although it is unknown how widely these have been adopted by industry.

OHS issues associated with the handling and use of materials (such as crumbed rubber in asphalt or glass in roads and pavements) can inhibit the uptake/demand for recycled content materials. Other feedback included issues with supply of recyclate (i.e. consistency, timeliness, amount) where the economics don't stack up, i.e. the use of recycled materials increases the cost of the product can also be a negative influence.

From a local Government perspective, it was established through the communications that local Government want to be sure the product is value for money across all whole of life or lifecycle costs. The establishment of relevant assessment/testing programs need to be established so the quality of the product can be determined and is appropriate, the life of product can be established, and any safety issues identified and mitigated.

One industry association suggested that particular products should be banned from landfill as the starting point to making it economical to re-use the materials in recycled content products. There needs to market certainty that these products will have an economic value. The introduction of an end of waste process, similar to that that has been introduced into Queensland could be a good approach if adopted nationally.

Waste and Resource Recovery Hubs and land use planning could facilitate the siting of recovery and re-use facilities. For example concrete crushing could be paired with concrete batching plants and

bitumen plants, to further assist with the uptake of recycled materials. Another example would be tyre shredding facilities, with bitumen and footpath manufacturing sites.

New information taken from the interviews

Recycled organic materials are not specified often for roadside infrastructure work and could be used more often. Road authorities are particularly conservative.

The market does not like the less than perfect finish of recycled materials. This is in part due to the very high standards set by Apple products and is encouraged by Design Awards programs that are more focused on the quality of finish on a product than the design or innovation, thus limiting the market for recycled product.

Governments have the opportunity to demonstrate leadership by adopting more innovative procurement and contractual models that encourage the use of recycled content as part of a whole of life cost approach to design and building practices (for instance, through embedding the use of existing standards and specifications).

At this early stage we see two main issues for local government and procuring recycled content products. One is policy and the other is approved products. We see this as approaching the problem from a top down and bottom up perspective. We need to develop a 'recycling content' policy that is acceptable to a price sensitive local government sector and we need to have specifications and products that are acceptable to the local government procurement teams and end users. These products need to have a value for money whole of life cost and local government decision makers need to be confident and aware of this value proposition.

Many Councils have standard form tender schedules, contracts and product / services specifications that they reuse year after year. The inertia to undertake a project to introduce 'sustainable purchasing' criteria into procurement practices and complex Top down leadership from the Executive is needed to implore and/or resource.

A proportion of engineers and specifiers lack the desire for innovation and want to maintain the status quo and procure the same products they've always used.