

**Title: Closing the Loop “The circular economy” Recycling and Re-Use of Valve and Hydrant Access Covers back into new products**

Daemco Australia manufactures and supplies a range of non-trafficable Valve and Hydrant Covers & Lids to the Water Infrastructure Network for new sub-divisions and renewal programs across Australia. These products are manufactured from Sheet Mould Compound (SMC), a glass-fibre reinforced polyester. As a certified company to ISO14001 Environmental Management, we undertook an internal review of our environmental impact and identified an opportunity to close the loop in the circular economy for this range by developing and implementing a recycling and reuse program. It was identified that it may be possible to recycle the SMC material and once processed, be added into a concrete aggregate mix that could be used to make new products. The challenge was to achieve a minimum Mpa structural strength in order for the concrete mix to be suitable to manufacture new products. Extensive research was done by experimenting with different mix combinations. I will explain the process and steps undertaken as to how this program now prevents the Daemco range of Valve and Hydrant non-trafficable products from being disposed into landfill, be recycled, re-used made into new products and extending the life and maximising the value to the Water Infrastructure Network.

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