

# SURECAV<sup>®</sup> SureCav Embodied CO2 Production compared to Concrete Blocks

An average, 3-bedroom, 100m<sup>2</sup> wall area dwelling, will require 185 sheets SureCav. SureCav removes the need for 20-tonnes of dense concrete backing blocks, as shown in the chart below. These calculations are based on a weight for weight comparison.

## Dense concrete blocks:

20 tonnes 100mm (ECO2) kgCO<sub>2</sub>/tonne  
(cradle to factory gate)<sup>1</sup>

KgCO<sub>2</sub>/tonne

1855

## Virgin polypropylene

0.209 tonnes (ECO2) kgCO<sub>2</sub>/tonne  
(cradle to factory gate)<sup>1</sup>

815

## SureCav is made from 100% recycled polypropylene

### 100% recycled Polypropylene

185 sheets SureCav, injection-moulded  
0.209 tonnes (ECO2) kgCO<sub>2</sub>/tonne (re-processed)<sup>2,3</sup>

276

100% recycled feed-stock is estimated to require a third or less of the energy used when compared to virgin materials

**Conclusion: SureCav produces around a sixth or less of the embodied carbon, in production, compared to the concrete-block backing wall it replaces.**

#### References:

1. Inventory of Carbon & Energy (ICE database from Bath University v3)
2. T.A. Tukker, Plastics Waste – Feed-stock Recycling, Chemical Recycling and Incineration, 2002.
3. Full BSRIA-ICE-guide based on the data sourced from Geoff and Craig 2008, Dong 2018 and O'Farrell, 2018