

POLYROK

FACT SHEET



Polyrok provides a solution to the most problematic plastic waste stream – post consumer soft plastic packaging.

It is primarily designed for use in projects by corporations, Councils, and Government departments who are looking to lower their carbon footprint and be part of the circular economy. However, if domestic consumers who are passionate about environmental benefits and the potential of Polyrok want to use it in a small project it is possible, as long as they consider certain criteria. They will need to work with their local concrete supplier, who is keen to be part of this exciting innovation and is willing to proceed with initial testing.

During 2020, Replas is looking for trial projects to engage with the community – larger projects will be more cost effective. However, in 2021 after further testing with RMIT it will be much easier to use Polyrok on a wider scale across Australia.

TO LEARN MORE, PLEASE READ OUR FREQUENTLY ASKED QUESTIONS:

Q: Where can I buy Polyrok?

A: Polyrok is usually supplied directly to the concrete plant.

Q: How much Polyrok do I need per cubic metre of concrete poured?

A: It depends on your local concrete company's design mix, generally 80-100 kgs per m³ of concrete is used. This is something we can discuss with the concrete plant once they are on board.

Q: How is it delivered?

A: Small quantities can be supplied; larger quantities are delivered in 1m³ bulk bags.

Q: Can I pick it up?

A: This can be coordinated through the concrete supplier.

Q: Can you provide mixing/pouring instructions?

A: No special instructions are required. Replas is happy to speak with the supplier if they have any questions.

Q: Can I pump Polyrok Concrete?

A: Yes, concrete containing Polyrok can be pumped using conventional concrete pumps.

Q: Can domestic users use Polyrok in home installations?

A: Yes, smaller applications are possible for passionate consumers. They will need to ask their local concrete supplier and ask if they are willing to work with Polyrok as the new sustainable alternative for partial replacement of aggregate in concrete.

Q: Is Polyrok more expensive than traditional concrete?

A: Yes, it is more expensive (between 5-15% due to variations in the market price of concrete), however the benefits far outweigh the additional cost.

Q: What are the benefits of Polyrok?

A:

- Lightweight
- Ease of application
- Environmental value
- Reduction of thermal mass
- Reducing plastic waste to landfill and associated costs
- Fit for purpose, finding a home for the most problematic plastic in the world
- 90% REDcycle collected material (made from post-consumer packaging)

Q: What would be required of the concrete supplier?

A: The Concrete supplier is required to run a trial batch using their in-house design mix to validate performance. Replas can guide the concrete supplier through this simple process.

Q: What percentage of Polyrok is in the concrete pour?

A: Polyrok can be added between 10-20% replacement of the coarse aggregate content. This can be varied to meet the environmental and economical requirements of the project.

Q: What is the advantage for the concrete supplier to work with Polyrok?

A: Once they have completed initial validation testing, they have a unique innovative marketing platform.

Q: Is Polyrok recyclable?

A: Yes, fully recyclable.

Q: Will Polyrok end up in the waterways?

A: No, the plastic is fully encapsulated within the concrete.

FURTHER INFORMATION:

- One cubic metre of concrete will contain 35 kg of redcycle material, being Polyrok this equates to 8,750 pieces of plastic packaging at average weight of 4 grams each. (Based on a 10% mix of Polyrok against aggregate).
- Polyrok is intended to be added to the concrete suppliers existing mix design, it is simply replacing 10% or more of the coarse mineral aggregate within their mix design. Example.. If the current mix design for 25 MPa contains 700L of coarse aggregate, it would simply be a case of substituting 70L coarse aggregate for 70L of Polyrok. All other parameters of the mix should not be changed
- NATA lab testing of the concrete suppliers polyrok mix verifies compliance with building standards