



A Sumo diaper — the first mono-material diaper to market. | Photo source [luisakahlfeldt.com](https://luisakahlfeldt.com)

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## SEAWEED-BASED DIAPER IS WASHABLE, REUSABLE AND BIODEGRADABLE

 HEALTH & WELLBEING

**The mono-material fabric is naturally antibacterial, soft enough for baby skin and easily recycled.**

**Spotted:** Product designer Luisa Kahlfeldt's Sumo baby diaper combines a beautiful aesthetic, with cutting edge fabrics and construction. Named after the Japanese sport, the Sumo is the first mono-material diaper to market. The fabric is made from SeaCell, a naturally smooth, soft and antibacterial material composed of eucalyptus and algae extracts.

SmartFiberAG manufactures SeaCell via a sustainable process that leaves the seaweed completely untreated. By using the natural stretch method of knitting yarn, the diaper has an in-built elasticity that allows it to close with a wraparound tie. This eliminates the need for extra parts and materials such as snap closures, Velcro tape or buttons. Recycling is much easier when products contain only a single material.

To keep leakage to a minimum, Kahlfeldt has partnered with Swiss company Schoeller to incorporate biodegradable waterproofing compound EcoRepel into the diaper. The diapers are a natural fibre colour, with contrasting edging and ties, and can be washed and reused many times. Kahlfeldt's development plans for the diaper including scaling manufacturing and further refining the fabric. In September 2019, the Sumo diaper won the national [Swiss James Dyson](#) awards and is currently under consideration for the international grand prize, to be announced in November 2019.

Many of the innovations spotted by Springwise for parents and babies focus on safety and health, such as a stroller-mounted [air filter](#) and a [resuscitation kit](#) that provides guidance for caregivers.

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## **Takeaway:**

Material science is a fascinating combination of reuse and creation. The reuse of old items and waste from a variety of processes helps to create new products, many of which purposefully replace plastic. Other innovations focus on creating biodegradable plastics from sustainably grown and harvested plants. Ideally, the second process will eventually eclipse the first, as the use and manufacture of single-use plastic and other waste products are phased out.