



Pulp derived from wood – a sustainable, renewable resource.

## What is dissolving pulp (DP)?

Dissolving pulp (DP) is a purified cellulose pulp suitable for subsequent chemical conversion into a range of products. Cellulose – the most common biopolymer on earth – is the structural component of the cell walls of green plants.

## What does ‘dissolving’ refer to?

Dissolved DP can be spun into textile fibres, cast into a film or regenerated into a sponge. Derivatisation of the DP without dissolution can also produce a wide range of products with different functionalities, e.g. cellulose ethers.

## What is DP used for?

DP 91-95% cellulose content is mostly used to make viscose fibres for use in textiles. Higher cellulose content DP is used to make rayon yarn for industrial products such as the cord used in tyres, rayon staple for high-quality fabrics, acetate and other speciality products.

Most of the DP Sappi produces is used to make cellulosic fibres – fashion and decorating textiles.

*Learn more: Sustainability FAQs – Our certifications*

## Is all DP the same?

No. Dissolving pulp quality is tailored to meet the functionality requirements of end use applications. The cellulose chain length (viscosity) and the purity of the pulp (% cellulose) are mainly adjusted to meet customer requirements.

## Where does Sappi produce DP?

Combined, our three DP mills on two continents can produce over 1.4 million tons per annum (tpa).

### South Africa

- **Saiccor Mill:** 890,000 tpa sulphite DP capacity. Acquired by Sappi in 1989, this mill has been manufacturing DP since 1955.
- **Ngodwana Mill:** 255,000 tpa kraft DP capacity since 2013.

### North America

- **Cloquet Mill:** 370,000 tpa kraft DP capacity; can switch between DP and paper pulp.

We continue to invest in all three of our world-class production sites – further entrenching Verve as the fibre of choice.

## What is DP made from?

Both Saiccor and Ngodwana Mills use eucalyptus (hardwood) woodfibre sourced from responsibly-managed plantations in close proximity to the mills. Cloquet Mill uses mixed northern hardwoods: aspen (approximately 65%) and maple (35%).

## Fast facts

- Our DP brand is known as Verve with
  - Verve Advantage – a lyocell grade primarily aimed at the textile market.
  - Verve Performer – a viscose grade for the textile and sponge markets.
  - Verve Elements – a speciality grade focused on the pharmaceutical, microcrystalline cellulose (MCC) and ethers markets.
- Most of the DP Sappi produces is used for fashion and decorating textiles.
- We are able to produce over 1.4 million tpa of DP with our most recent capacity expansion at our Saiccor Mill completed in 2021

## What else can DP be used for?

Products produced from DP can be used in a wide range of applications: Rheological modifiers in products such as lipstick, cigarette filters, fillers in fat-free yoghurt, tablets and washing powders and cellophane wrap; MCC is used as a binder in pharmaceuticals and as a thickener in food; and ethers are used in various industries such as pharmaceuticals, food, personal care and construction, and as binding agents in paints.

## What is the primary market for Sappi's DP?

A large percentage of our DP is sold globally into the rayon – Viscose Staple Fibres (VSF) and Lycocell (solvent spun fibres) – markets for use in textiles.

## What advantages do cellulosic fibres offer?

### Unique properties

Fabrics made from cellulose differ from other feedstock fibres in that they are breathable, absorbent, recyclable and biodegradable. They provide a unique and appealing look, feel and drape.

### Advantages of wood-based fibre

Wood-based fibre provides a sustainable alternative in a resource-constrained world. Sappi Verve is produced from wood that is certified and traceable. This, together with Sappi's focus on sustainability, provides assurance of a product with a legacy of commitment to our people, the communities within which we operate, prosperity for all and our planet. All these attributes make Verve the Fibre of Choice.

## Environmental considerations

Wood for our DP production is sourced from sustainably managed plantations which are certified under internationally recognised forestry certification schemes. Products derived from DP are ethical, renewable, circular, and traceable

## Is the timber Sappi uses to make DP certified?

Our South African mills use woodfibre that is Forest Stewardship Council™ (FSC™ N003159); and Programme for the Endorsement of Forest Certification™ (PEFC/01-44-43) certified.<sup>1</sup> At Cloquet Mill, 100% of our woodfibre meets both the FSC™ Controlled Wood and SFI® Certified Sourcing Standard. Certification by these internationally accredited organisations provides assurance that the woodfibre used in our DP originates from sustainably managed forests and plantations.

## In addition to certification, is the woodfibre Sappi uses for Verve traceable?

In 2021, Sappi Verve (dissolving pulp) partnered with Birla Cellulose, one of the leading viscose manufacturers in the textile value chain, to provide a forest-to-garment traceability solution for 22 global brand owners. This was made possible through the use of Birla's pioneering 'Green Track' blockchain technology, coupled with Sappi's comprehensive database on wood origin for its dissolving pulp operations in South Africa and the USA.



<sup>1</sup> Our mills and forestry certification details, including FSC™, SFI® and PEFC, are available online (<https://www.sappi.com/certifications>) and summarised in the Sustainability FAQs – Our certifications.