

# Sustainability in Supply Chains



## Tajna Shellac

Sustainability starts at the source

### Who Is Tajna Shellac

Tajna was formed in 1984 producing fine Seedlac, Shellac & Lac Dye. The family run company operates out of Khunti in Jharkhand, India. The company has been acclaimed in the global market as both a reliable and trusted supplier, with managing director Mr. Roshanlal Sharma having over five decades of experience in the Shellac industry.



The resin is then air-dried and is known as Seedlac due to its grain-like consistency, which ranges in colour, depending on which insect produced it and the host tree it inhabits.

The molten Lac is then stretched by stainless steel rollers into a long thin film before being broken into flakes once cooled. The wax contained in the Lac is not removed by this process and the colour of the flakes mainly depends on the type of Seedlac used.

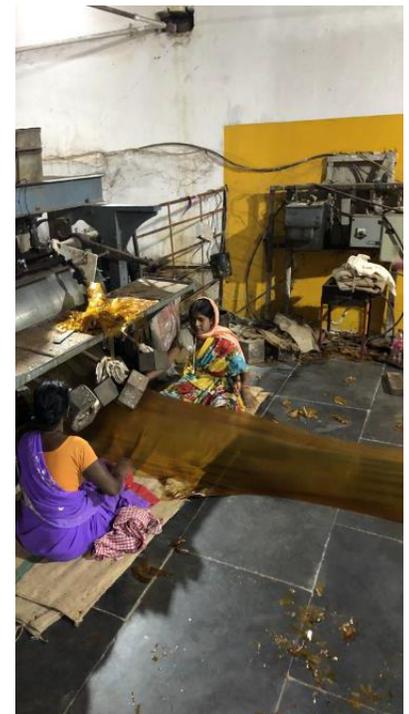


### What is Shellac?

Shellac is a natural resin refined from Lac, the resinous secretion of the tiny insect, *Kerria Lacca* (more resistant bug) and *Laccifer Lacca* (less resistant bug), which is parasitic on certain host trees.

The insect feeds on the sap of the tree and secretes the Lac as a protective shell in which the female lay their eggs.

The resin is harvested by scraping the encrusted twigs, known as Sticklac, before being taken to the factory where the Lac is crushed, sieved to remove any twigs, insect remains and other impurities before being washed in water to remove the red pigment that is sold separately as Lac Dye.



## Bleached Shellac Plant

Bleaching involves dissolving Seedlac in an aqueous alkaline solution. The solution is then filtered to remove any insoluble material, and optionally the Shellac Wax too, before being bleached with sodium hypochlorite to remove the colour.

The Shellac is then precipitated from the solution by adding sulphuric acid, before being filtered, washed with water and dried in vacuum dryers. The Bleaching process produces Regular Bleached Shellac if the wax has not been removed, respectively Dewaxed Bleached Shellac if the wax has been removed by filtration.



## Why Tajna

Our recent visit to Khunti, gave us a deeper insight to the Shellac process, but more importantly we witnessed first-hand the positive impacts the Tajna Shellac has on the local environment.

We believe sustainability starts at the source and much like Thew Arnott, Tajna Shellac is a company striving for sustainability.

Tajna runs on solar power, the renewable energy source powers the factory and its machinery as well as providing excess energy that allows Mr. Roshanlal and his family to power their home. The use of solar energy has heavily cut the company's carbon footprint as they strive to be sustainable.

In addition to solar power the company runs a water treatment plant recycling the waste water used in the production process. The recycled water is then reused in production. More impressively the recycled waste water is also used in the family home for everyday use.

Such practices should be recognised and praised. The use of renewable energy sources and recycling of water are becoming increasingly necessary in today's world. Something we at Thew Arnott are working hard to become more efficient in.

In addition to its environmental efforts, Tajna Shellac also hires from the local area, providing long term employment. This helps the local economy grow increasing the opportunities in the area.

We would like to thank Tajna Shellac for their hospitality, and we hope our connection with them for over two decades continues to strengthen.