



March 18, 2020

APR Walks the Talk on Transparency

Transparency, at every level of our production, is a necessary part of sustainability. That is why it has been a priority for Asia Pacific Rayon (APR) since we began our operations in January 2019.

Transparency helps to build trust and differentiates our performance from our peers. We desire to ensure that we are the most responsible viscose manufacturer in the world.

This month, we have started to publish our manufacturing performance benchmarked against EU BAT (European Union Best Available Technique) on our website **here** and our traceability platform Follow our Fibre **here**.

EU BAT (EU Best Available Techniques) also referred to as BREF's (EU Best Available Techniques reference) refers to a series of industry specific reference documents describing the best operating conditions of a production process. It is referred to as the most comprehensive standard for the production of viscose staple fibre. EU BAT is internationally applicable and sets out a strict range of consumption and emission limits.

EU BAT Compliance

| | Parameter | UoM | EU BAT | APR |
|-------------|------------------------------|-----------------------|----------------|----------------|
| Consumption | CS2 Consumption | kg/t VSF | <80 - 100 | ✓ |
| | Freshwater consumption | m ³ /t VSF | <35 - 70 | ✓ |
| | Total Energy consumption | GJ/t | <20 - 30 | ✓ |
| | Total Pulp consumptions | t/t VSF | <1.035 - 1.065 | ✓ |
| | Caustic Soda (NaOH) | t/t VSF | <0.4 - 0.6 | ✓ |
| | Sulphuric acid (H2SO4) | t/t VSF | <0.6 - 1 | ✓ |
| | Zinc (Z) | kg/t VSF | <2-10 | ✓ |
| | Spin Finish oil - Honol | kg/t VSF | <3-5 | ✓ |
| | Sodium hypochlorite (NaOCl) | kg/t VSF | <0-50 | ✓ |
| Emissions | Total Sulphur to Environment | kg/t VSF | <12 - 20 | * ¹ |
| | COD | g/t VSF | <3000- 5000 | ✓ |
| | SO ₄ | kg/t VSF | <200 - 300 | ✓ |
| | Zinc | g/kg VSF | <0.01 - 0.05 | * ² |
| Waste | Haz Waste | kg/t VSF | <<0.2 - 2 | * ³ |

1. Total Sulphur to air emissions compliant with EU Ecolabel standards. Our aim is to be fully compliant by 2025.

2. To improve our recovery rates to 98%, we will be investing in strengthening our recovery systems to be completed in 2023. We aim to operate at above 90% recovery rates from 2021.

3. We are developing a waste reduction plan Compliance with EU BAT expected in 2022.

As a new mill, we are pleased with the results of our current performance, and we recognize that we have some improvements to make. As a result, we have mapped out a comprehensive improvement plan to address the three aspects where APR currently not fully compliant to the standard.

We are committed to move towards closed-loop production, ensuring we perform in the top quartile of all existing industry standards.

About EU BAT (European Union Best Available Techniques):

EU BAT (EU Best Available Techniques) also referred to as BREF's (EU Best Available Techniques reference) are the result of an exchange of information between European Union Member States, the industries concerned, non-governmental organisations promoting environmental protection and the European Commission. The purpose of EU BAT is to outline both input and output standards for a particular process based without prescribing specific techniques or specific technologies to be used.

<https://eippcb.jrc.ec.europa.eu/reference/>

About Asia Pacific Rayon:

Asia Pacific Rayon is the first fully integrated viscose rayon producer in Asia. The factory with 240,000 ton capacity, located in Pangkalan Kerinci, Riau, uses the latest production technology to produce high-quality rayon to meet textile needs. APR is committed to become a leading viscose rayon producer that has the principles of sustainability, transparency and operational efficiency, serves the interests of the community and the country, and provides value to customers. APR is part of the RGE (Royal Golden Eagle) group of resource-based manufacturing companies.

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