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## **Patent Update: Uncertainty As A Ground For Insufficiency**

In the landmark 2023 decision of *Ila Technologies Pte Ltd v Element Six Technologies Ltd* [2023] SGCA 5, the Singapore Court of Appeal (SGCA) addressed key aspects of patent validity, particularly the requirement for sufficiency of disclosure and the implications of uncertainty in patent claims. This decision offers valuable guidance for industries—including textiles—seeking to secure robust patent protection in Singapore. We highlight the key principles and their implications for your patent strategies.

### ***Sufficiency of Disclosure: The “Enablement” requirement***

A patent specification must disclose the invention clearly and completely enough for a person skilled in the relevant field to reproduce it without undue effort. This requirement—known as sufficiency—ensures that the public gains meaningful knowledge in exchange for the limited monopoly granted by the patent. In Singapore, sufficiency is governed by Sections 25 and 80 of the Patents Act. Specifically, Section 80(1) provides that a patent may be revoked if the specification does not clearly and completely disclose the invention such that it can be performed by a person skilled in the art.

### ***Key Insights from the Case***

The patent in question (SG 872) described a method for growing synthetic diamonds with low optical birefringence (a measure of light distortion). However, the court found the patent to be insufficient because a skilled person would not know which test to apply to determine whether the claimed  $d$  value of a particular diamond exceeded a specified threshold—an essential aspect of satisfying the independent product claim.

Traditionally, Singapore courts only recognised classical insufficiency, where a patent specification fails to teach the skilled person how to work the invention. The SGCA has now acknowledged that insufficiency may also arise from uncertainty—that is, when a skilled person cannot determine whether a product or process falls within the scope of a claim.

The SGCA held that a patent lacking certainty fails the sufficiency requirement because a skilled person cannot work an invention if he cannot tell whether he has successfully done so, and there is no benefit to the public if it is unable to work the invention when the patent expires. Furthermore, the boundaries of the patentee’s property right must be clearly defined so that others can avoid trespassing.

Importantly, the SGCA distinguished uncertainty from lack of clarity—the latter is not, in itself, a ground for revocation.

Once uncertainty is demonstrated by an alleged infringer or opposing party, the burden may shift to the patentee to prove that a skilled person could, in fact, overcome that uncertainty.

### ***Navigating Detail with Broad Claims***

To reduce the risk of insufficiency, patentees should ensure that the description supports the full breadth of the claims. As a general rule, the broader the claims, the more detailed the disclosure needs to be. This may seem counterintuitive to some—particularly those who believe that “vagueness” offers broader protection—but in reality, robust broad claims require strong technical support.

Applicants should include all available information from inventors and consider possible implementations and variants. It’s helpful to adopt the perspective of a notional skilled person—the intended reader of the patent. Ask: What would I already know? What instructions would I need to carry out the invention?

When drafting claims, pay careful attention to word choice. Do any terms create ambiguity? If so, include clear definitions in the description.

Finally, remember that your patent specification will likely need to satisfy not only Singapore’s laws but also the legal requirements of other jurisdictions.

### ***Practical Tips for the Textile Industry***

- **Define measurable parameters** (e.g., tensile strength, fabric density) with precision.
- **Specify testing methodologies** (e.g., ASTM standards) to avoid disputes over reproducibility.
- **Use numerical ranges** (e.g., "tear resistance  $\geq$  50 N") instead of subjective terms.
- **Include comparative examples** that demonstrate the invention’s novelty (e.g., contrasting new fabric blends with existing materials).
- **Conduct a “sufficiency audit”** to identify and replace vague terms with measurable metrics.
- **Leverage industry standards** (e.g., ISO, AATCC) to define performance and testing protocols.

### ***Conclusion***

The *Ila Technologies* decision reinforces the critical importance of certainty and completeness in patent drafting. For textile manufacturers, this means placing greater emphasis on detailed disclosures, quantifiable claims, and alignment with technical standards. By addressing sufficiency and uncertainty at the outset, businesses can secure stronger patents and reduce litigation risks in Singapore’s well-developed IP framework.

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