

Numerical Parameters and Sufficiency

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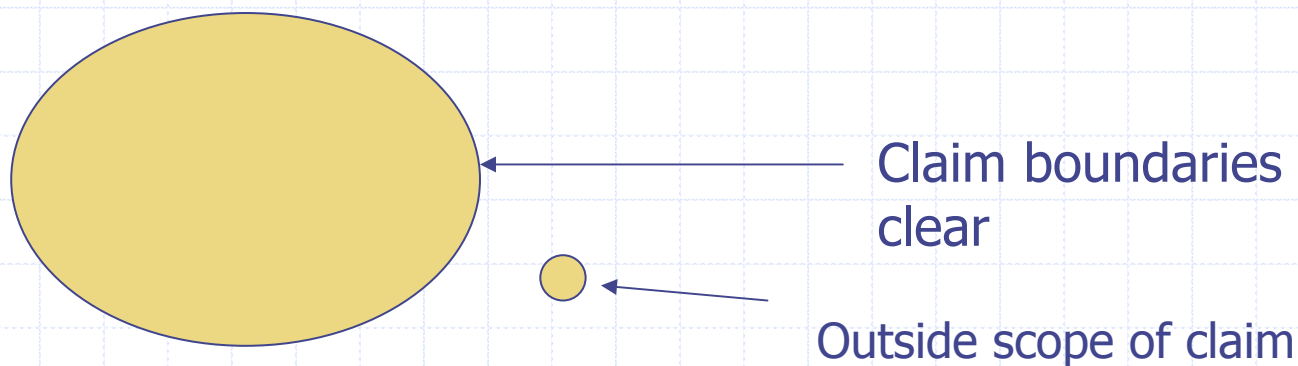
Overview

- ◆ Clarity
- ◆ Sufficiency
- ◆ Unusual parameters
- ◆ Recent cases focussing on sufficiency
- ◆ Strategies

Clarity

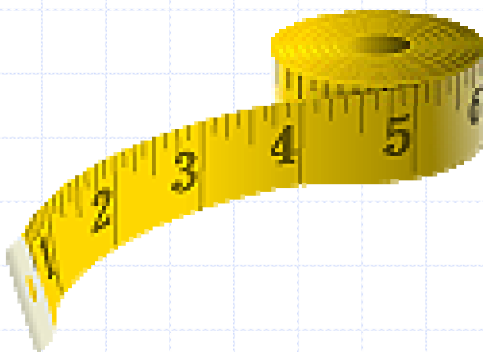
◆ Article 84 EPC

- ◆ "The claims shall define the matter for which protection is sought. They shall be clear and concise and be supported by the description."



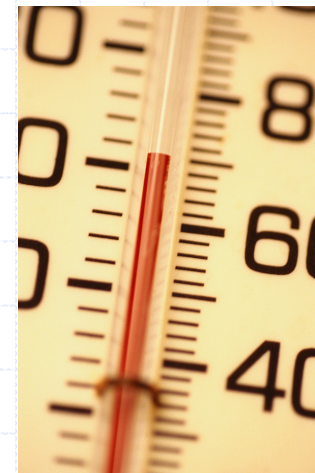
Clarity

- ◆ Common general knowledge taken into account
- ◆ Should be clear how to measure parameter from patent



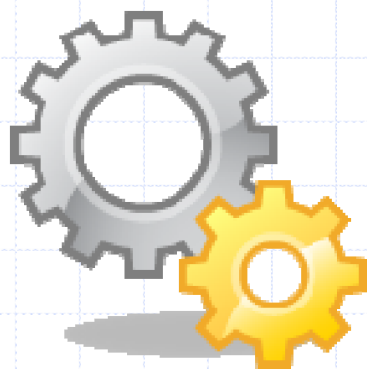
Clarity

- ◆ Recent example -
- ◆ T 0955/07 (Proctor and Gamble)
 - Composition...having extensional viscosity in the range of 50-20,000 Pa
 - Extensional viscosity varies with temperature
 - Insufficient information on what temperature to measure this viscosity
 - Scope of claims unclear; application refused



Sufficiency

- ◆ Article 83 EPC
- ◆ “The European patent application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.”



Sufficiency

- ◆ An invention is in principle sufficiently disclosed if **at least one way is clearly indicated** enabling the person skilled in the art to carry out the invention.
- ◆ BUT
- ◆ the disclosure of one way of performing an invention is only sufficient if it allows the invention to be performed **in the whole range claimed** rather than **only in some** members of the claimed class to be obtained
- ◆ *(Case Law of the Boards of Appeal (Fifth edition 2006))*

Pre- vs. Post-Grant

- ◆ Pre-grant (application stage)
 - Clarity and sufficiency examined
- ◆ Post-grant (opposition to granted patent)
 - Clarity is not a ground for opposition*
 - Sufficiency is a ground for opposition

*(*but amendments to patent claims made in opposition can be attacked for lack of clarity)*

Unusual Parameters

◆ In other words...

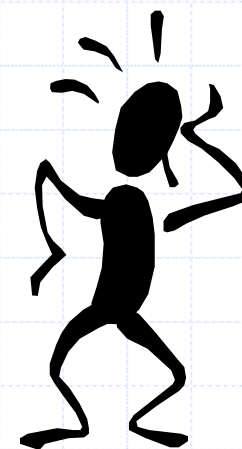
Parameters that are not common in the field
at the time of filing the patent application

Unusual parameters – T 172/99

- ◆ “It is precisely in the case of claimed subject-matter relying on such a newly formulated and, hence, unfamiliar parameter to define the solution of a technical problem by which a relevant effect is achieved, that the applicant or patentee, who has the duty of making a full and fair disclosure of his invention to the public (Article 83 EPC), is under a particular obligation to disclose all the information necessary reliably to define the new parameter not only (i) in a formally correct and complete manner such that its values can be obtained by a person skilled in the art without undue burden, but also (ii) in a manner which reliably retains the validity of the parameter for the solution of the technical problem for the application or patent in suit as a whole in the sense”

Unusual parameters

- ◆ Patent specification must disclose how to measure values “without undue burden”
- ◆ “Problem” solved across whole scope of unusual parameter
- ◆ Recent example T0484/05 - ExxonMobil
 - “free carbon index” > 3
 - mistake in definition could not be corrected
 - patent revoked



Sufficiency



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Sufficiency: T 0396/06 (Norstel)

- ◆ “A method for epitaxially growing objects of SiC, a Group III-nitride or alloys thereof by chemical vapour deposition...”



Sufficiency: T 0396/06 (Norstel)

- ◆ Process to be controlled such that “positive growth” takes place “i.e. deposition rate of elements forming the material grown on the substrate is higher than rate of material leaving the layers on the substrate due to sublimation and etching”



T 0396/06 (Norstel), cont...

- ◆ Enough information for “positive growth” to be determined for SiC but
- ◆ Not for Group III nitrides
 - considerations different from SiC
 - faced with undue burden to balance all experimental conditions



T 1205/06 (Sika Corporation)

- ◆ “An expandable sealing body comprising a synthetic resin composition... and said body having a compressive strength of at least about 1200 psi after expansion”



T 1205/06 (Sika Corporation), cont...

- ◆ Opposition Division revoked patent on ground that it was insufficient because
 - description gave two methods for measurement of compressive strength which give different values BUT
- ◆ Board of Appeal – this reasoning based on clarity not sufficiency
- ◆ But then they looked at sufficiency...

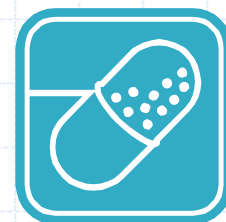
T 1205/06 (Sika Corporation), cont...

- ◆ “The first issue [of Art. 83] concerns the question of whether the extent of the monopoly, as defined by the claims, corresponds to the technical contribution of the patent in suit to the art or whether the claims extend to subject-matter, which, after reading the description, is still not at the disposal of the person skilled in the art.”

T 1205/06 (Sika Corporation), cont...

- ◆ Board of Appeal looked at “promise of patent”
 - Specification indicated that compositions: “injection mouldable and lightweight”
 - BUT
 - only some examples seemed suitable – although all had composition required by claim
 - “it is evident that it would be necessary for skilled person to establish with considerable trial and error how to realise the combination of properties defined in claim 1”
 - Specification only offered “invitation to perform research programme”

T 0696/05 (G.D. Searle & Co.)



◆ “ A pharmaceutical composition comprising one or more..dose units...each comprising particular celecoxib...having a distribution of celecoxib particles such that D_{90} ...is less than 200 microns, and...

having a **relative bioavailability** of celecoxib not less than 50% by comparison with orally delivered solution containing same dose of celecoxib”

T 0696/05 (G.D. Searle & Co.), cont...

- ◆ D_{90} common parameter BUT
 - established that mean value could be by number or by weight (specification silent on which to choose)
 - This was unclear, but not reason for insufficiency: “this alone does not hinder the skilled person from dealing with the claim in a technically meaningful manner”

T 0696/05 (G.D. Searle & Co.), cont...

- ◆ BUT relative bioavailability – considered a “result to be achieved”
- ◆ Again, BoA studied Examples:
 - “lack of information in the patent in suit concerning the technical measures for attaining the relative bioavailability”
 - Notably one example of conventional composition had extra fine particle sizes and did not fulfil relevant condition

T 0696/05 (G.D. Searle & Co.), cont...

- ◆ “Claim 1 amounts to an invitation to perform a research programme to find the conditions essential for an adequate oral dosage form.”



Strategies

- ◆ Definitions to be examined closely when drafting application – inventors and patent attorneys to liaise closely
- ◆ Particular care with unusual parameters
- ◆ Care with “common” parameters – variability with conditions

Summary

- ◆ Meaning of clarity and sufficiency
- ◆ Pre- and post-grant difference
- ◆ Unusual parameters
- ◆ Recent cases on sufficiency: “invitation to carry out a research programme”
- ◆ Strategies

Thank you

◆ Questions?