

# Requirements for Claims

Japan Patent Office

---(Slide 0)---

Welcome to the lecture on “Requirements of Claims.”

- I. Clarity Requirement
- II. Support Requirement

---(Slide 1)---

**Requirements related to claims include the clarity requirement, support requirement, conciseness requirement, formal requirement, and other requirements. In this lecture, I will explain the clarity requirement and the support requirement.**

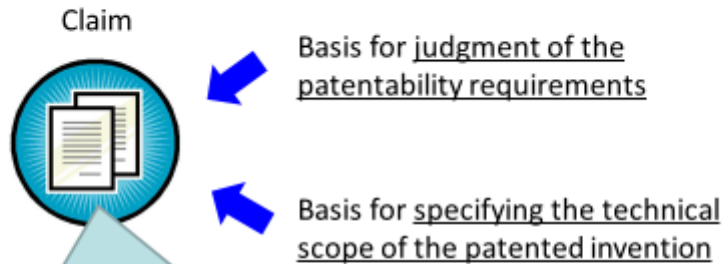
- I. **Clarity Requirement**
- II. Support Requirement

---(Slide 2)---

First, let's look at the clarity requirement.

## I. Clarity Requirement

### A. Basic Rule



An invention must be **clearly identified** from one claim.

	JPO	EPO	USPTO	SIPO	KIPO	PCT
Clarity Requirement	Art. 36(6)(ii)	Art. 84	Art. 112(b)	Art. 26	Art. 42(4)2	Art. 6

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I will explain why the clarity requirement is necessary.

Claims have two important roles. First, claims serve as the basis for judging patentability requirements.

Examiners identify an invention for which a patent is sought based on the statement in the claim; and they then judge whether the claim fulfills the patentability requirements, such as novelty and inventive step.

Second, claims serve as the basis for determining the technical scope of the patented inventions after the claims are patented.

The necessity of the clarity requirement follows these two roles of patent claims.

If an invention cannot be understood clearly based on the statement of the claim, examiners cannot judge whether the invention fulfills the patentability requirements, and people cannot determine the technical scope of the patented invention.

Therefore, an invention must be clearly identifiable from a claim by a person skilled in the art.

This is why the clarity requirement is necessary.

## I. Clarity Requirement

### B. Examples of Lack of Clarity Requirement

#### 1. The statement of the claim itself is unclear.

- (1) Inadequate expression in language rendering a claimed invention unclear

- Mistake in writing
- Grammatical error



- (2) Incomprehensible term

#### [Claim]

A process for manufacturing compound X, consisting of process A and process B in the presence of KM-II catalyst.

- Not defined in the description
- Incomprehensible even by taking into account the common general knowledge as of the filing date

➡ The claim is **not clear**.

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As I explained using the previous slide, claims shall be clear.

Therefore, if an examiner finds that the claim of a patent application is unclear, the examiner will notify the applicant.

Then, in which cases should the examiner judge that the claim lacks clarity?

In this lecture, I will show seven types of violations against clarity requirements.

However, please note the following. First, even if a case does not correspond to any one of the seven types, this does not immediately mean that the claim is clear.

Second, even if a case seems to correspond formally to one of the seven types, there are cases where the statement of the claim can be clearly understood based on the description or drawings or based on the common general knowledge of a person skilled in the art.

Therefore, examiners need to read through not only the claims but also the description and drawings and they need to be familiar with the common general knowledge in the technical field.

**Now, let's look at a first type of violation against the clarity requirement.**

**This is a type of case where the statement of the claim itself is unclear.**

**First, if a claim includes linguistically inappropriate expressions, the claim can be unclear.**

**This includes clerical and grammatical errors.**

**Second, expressions that a person skilled in the art cannot understand will make the claim unclear.**

**Please look at example (2) on this slide.**

**“A process for manufacturing compound X, consisting of Process A and Process B in the presence of KM-II catalyst.”**

**The term “KM-II catalyst” as used here is not defined in the description.**

**Moreover, a person skilled in the art cannot understand the meaning of the term “KM-II catalyst” even in consideration of the common general knowledge as of the filing date.**

**In this case, because the meaning of the term “KM-II catalyst” is unclear, the claim is also unclear.**


## I. Clarity Requirement

### B. Examples of Lack of Clarity Requirement

#### 2. A technical defect exists in the matters used to specify the invention.

**[Claim]**  
An alloy comprising;  
50 to 60wt% Fe,  
40 to 50wt% Cu, and  
20 to 30wt% Ni.

The claim includes a technical deficiency.  
(50+40+20=110%) ← **Over 100%!**  
→ The claim is **not clear.**



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Now, let's look at a second type of violation.

This is a type of case where there are technical defects in the matters used to specify the invention.

Please look at the example on the slide.

An alloy comprising

50 to 60 weight percent iron;

40 to 50 weight percent copper; and

20 to 30 weight percent nickel.

This claim includes three conditions related to the ingredients.

Please note the minimum percentages needed to fulfill each condition.

In order to fulfill the first condition, at least 50% of the alloy must be iron.

In order to fulfill the second condition, at least 40% of the alloy must be copper.

In other words, at least 90% of the alloy is iron and copper, so the room left for nickel is at most 10%.

However, in order to fulfill the third condition, at least 20% of the alloy must be nickel.

**Therefore, if an alloy fulfills both the first and second conditions, the alloy cannot fulfill the third condition.**

**In short, no alloy meets all three conditions specified in the claim.**

**This type of claim is technically defective and therefore unclear.**



## I. Clarity Requirement



### B. Examples of Lack of Clarity Requirement

#### 3. The category of an invention is unclear. (See also Chapter IV C.)

There are two basic kinds of claims (categories of claims).

- a. **Physical entity** (Product, Apparatus, System, ...)
- b. **Activity** (Method, Process, Use, ...)

[Claim]

A product and method comprising ....

[Claim]

An anti-cancer effect of chemical compound A.

Product Claim? Method Claim?

➡ The claims are **not clear**.



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Let's look at a third type.

This type of violation occurs when the category of invention is unclear.

Inventions must fall into either of two categories. The first category is physical entities, such as products, devices, and systems.

The second category is activities, such as methods, processes, and use.

Now, please remember the second role of patent claims.

The claim serves as the basis for determining the technical scope of the patented invention.

The technical scope of the patented invention differs by the category of invention.

Therefore, if the category of invention cannot be determined based on the statements of the claim, the technical scope of the patented invention cannot be determined.

As shown in this example, if the category of invention is unclear, the claim is also unclear.

## I. Clarity Requirement



### B. Examples of Lack of Clarity Requirement

#### 4. The scope of the invention is unclear as a result of using the following expressions.

“thin” “wide” “strong”  
“about” “approximately”  
“when desired” “for example”

- Vague or equivocal forms of wording may leave the reader in doubt as to the scope of the invention.
- In that case, the claim is **not clear**.

“high-frequency” in the technical field of amplifier

**Clear** for a person skilled in the art!

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Let's look at a fourth type of violation.

The expressions shown in the text box of this slide may make claims unclear.

If adjectives such as “thin,” “wide,” and “strong,” are used in the claim without specifying the exact measurements, the claim may become unclear.

In addition, expressions that make the range of numbers vague, such as “about,” or “approximately,” may also make the claim unclear.

You also have to pay attention to expressions like “when desired,” or “for example.”

If the scope of the invention becomes unclear to a person skilled in the art as a result of using these expressions, the claim is unclear.

However, there is one thing that I would like you to be careful about.

If you use a term that has a meaning that is widely recognized in the technical field in order to express the said meaning, we cannot say that the use of the term makes the claim unclear.

For example, the meaning of the term “high-frequency” in the technical field of amplifiers is clear to a person skilled in the art.

## I. Clarity Requirement



### B. Examples of Lack of Clarity Requirement

#### 5. Definition by function or characteristics, etc.

When the claim includes the definition by function, characteristics, etc., there are cases where the claim becomes unclear.

(Example 1)

##### [Claim]

Compounds having the R receptor activating action.



- The description states that the applicant was the first to discover the "R receptor."
- It is common general knowledge as of the filing date that it is difficult to understand the specific compounds defined only by their action of activating the newly discovered receptor.

➡ The claim is **not clear.**

*It is noted that, in general, claims may be expressed by function or characteristics, etc.*

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Let's now look at a fifth type of violation.

If a claim includes definitions by functions or characteristics, rather than by structures, the claim can become unclear in some cases.

Let's look at the claim in Example 1.

"Compounds having the R receptor activating action."

The description of this patent application states that the applicant was the first to discover the "R receptor."

It is common general knowledge as of the filing date that it is difficult to understand the specific compounds defined only by their action of activating the newly discovered receptor.

In this case, the chemical composition or chemical structure of the compounds cannot be understood based solely on the action of "activating the R receptor."

Therefore, this claim is unclear.

## I. Clarity Requirement

### B. Examples of Lack of Clarity Requirement

#### 5. Definition by function or characteristics, etc.

(Example 2)

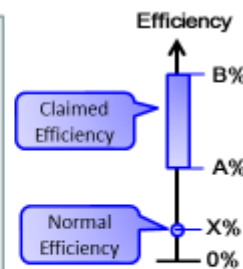
##### [Claim]

A hybrid car of which energy efficiency during running on electricity is from A to B%.



- In the field of the hybrid car, it is common general knowledge as of the filing date that the energy efficiency is normally about X%, far lower than A%.
- In light of this, **it is difficult to understand the specific hybrid car defined only by such high energy efficiency.**

➡ The claim is **not clear.**



*It is noted that, in general, claims may be expressed by function or characteristics, etc.*

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Let's look at Example 2 of the fifth type of violation.

“A hybrid car for which the energy efficiency while running on electricity is between A% to B%.”

In the field of hybrid cars, it is common general knowledge as of the filing date that energy efficiency is normally about X%, which is far lower than A%.

Therefore, it is difficult for a person skilled in the art to understand the specific hybrid car defined only by such high energy efficiency.

As a result, this claim is unclear.

## I. Clarity Requirement



### B. Examples of Lack of Clarity Requirement

#### 6. Product by Process Claims - 1/2

- Product by process (PBP) claim = a claim defining a product in terms of the process by which the product is made.
- Normally, a PBP claim shall be construed to refer to the final product *per se*.

##### [Example]

A compound A sodium salt prepared by a process comprising the steps of:

- a) forming an enriched organic solution of the compound A;
- b) precipitating a compound A as its ammonium salt;
- c) purifying the ammonium salt by recrystallization;
- d) transposing the ammonium salt to sodium salt; and
- e) isolating a compound A sodium salt.

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The sixth type of violation is the case where a “product by process claim” becomes unclear.

A “product by process claim” is a claim defining a product in terms of the process by which the product is made.

This is called a “PBP claim” for short. Normally, a PBP claim shall be construed to refer to the final product *per se*.

Please look at the example in this slide.

This is an example of a claim for compound A sodium salt prepared by a process comprising steps a through e.

The scope of this claim covers not only compound A sodium salt prepared by the process comprising steps a through e, but also a substance with the same ingredients prepared by a different process.

Therefore, the scope of a PBP claim is difficult to understand at a glance.

In which case does the PBP claim become unclear?

Let's go to the next slide.

### B. Examples of Lack of Clarity Requirement

#### 6. Product by Process Claims - 2/2

When a claim concerning an invention of a product recites a manufacturing method for the product, the invention is clear only when the invention involves the situation where it is impossible or utterly impractical to define the product by its structure or characteristics at the time of filing. Otherwise the invention of the product is judged to be not clear.

##### Examples of the above situations:

- (i) It is technically impossible to analyze its structure or characteristics at the time of filing.
- (ii) It requires an outrageously large economic expenditure or time to carry out the work necessary to identify the structure or property of the product in view of the nature of a patent application which requires speed, etc.

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In JPO practice, when a claim concerning an invention of a product recites a manufacturing method for the product, the invention is clear only when the invention involves a situation where it is impossible or utterly impractical to define the product by its structure or characteristics at the time of filing.

In other words, as explained in the previous slide, the scope of the PBP claim is difficult to understand at a glance and therefore the claim is unclear in principle.

However, in JPO practice, PBP claims are accepted in the following cases.

In cases where it is technically impossible to analyze the structure or characteristics of a product at the time of filing.

Or in cases requiring an outrageously large economic expenditure or time to carry out the work necessary to identify the structure or property of the product in view of the nature of a patent application, which requires speed, etc.

## I. Clarity Requirement



### B. Examples of Lack of Clarity Requirement

#### 7. Trademark, etc.

- Trademarks and similar expressions characterize the commercial origin of goods, rather than the properties of the goods relevant to the invention.
- Even though a trademark itself is the same, the goods and those properties indicated by the trademark may be changed from time to time by decisions of the trademark holder.



The examiner should encourage the applicant to **remove** trademarks and similar expressions in claims, unless their use is unavoidable.

Such words may be allowed, exceptionally, if they are generally recognized as having acquired a precise meaning.



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The seventh type of violation is the use of trademarks or similar expressions.

Trademarks or similar expressions characterize the commercial origin of goods, rather than the properties of the goods relevant to the invention.

A trademark holder may change the ingredients or mechanical structure of goods to which the trademark is attached. So, the characteristics of the goods to which the same trademark is attached may change over time.

Therefore, if a trademark is used in the statement of the claim, the invention may become unclear.

Examiners should invite the applicant to remove trademarks and similar expressions in claims unless their use is unavoidable.