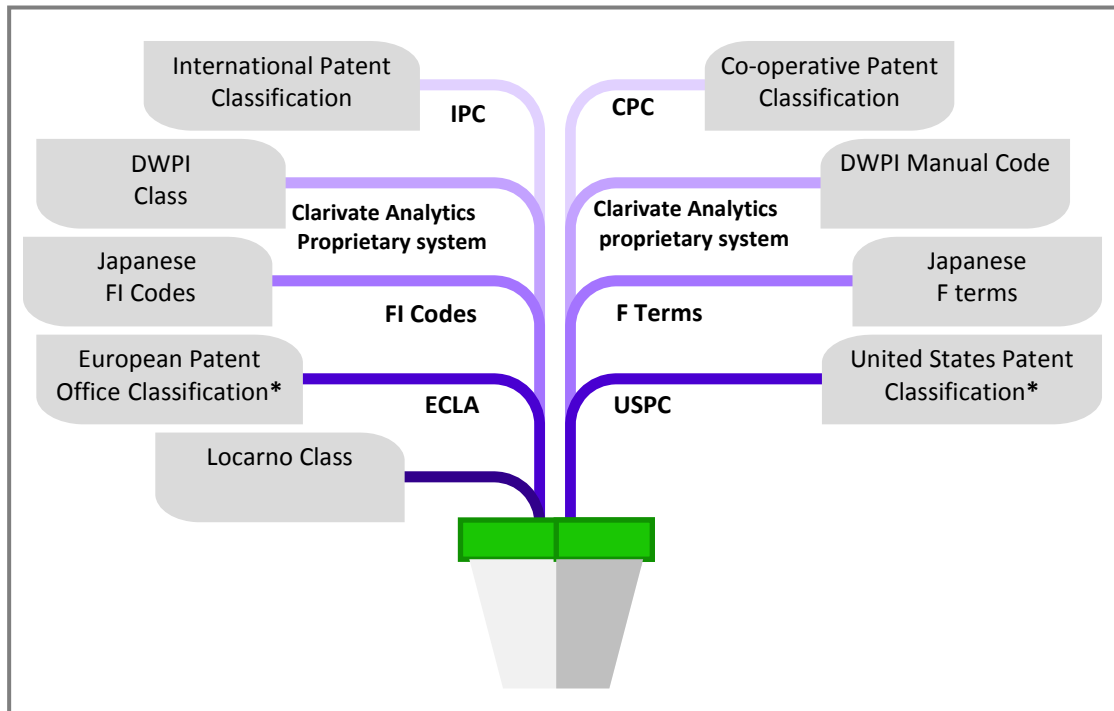


Utilizing patent classifications for more precise and accurate searching

- ✓ Overview of the different Classification Systems available on Derwent Innovation
- ✓ What are the strengths and weaknesses of the different Classification Systems?
- ✓ How to identify the best classification codes to use in a search
- ✓ Explore examples of using the different classification codes in searches, including use of the CPC combination codes.

Classification Codes Available in Derwent Innovation

Derwent Innovation records contain patents classified with one or more of the following systems:



*Please note that the USPC and ECLA systems are no longer actively used and have been replaced by the CPC system. Note: a few US patents may appear with US classes on them if they were classified before the system was phased out. Due to being inactive, this course will not look at these systems in detail. The classification data for these two inactive classification systems is available in Derwent Innovation so you may continue to search against historical data, such as with prior art searching. As the USPC and ECLA classification systems cannot be used to locate recent patents, the recommendation is to identify appropriate classes in, and then to search, in the one or more of the currently active systems.

Comparing the Classification Systems

International Patent Classification (IPC) System

International Patent Classification system (IPC) was created by the Strasbourg agreement of 1971 and is administered by the World Intellectual Property Organization (WIPO). Its main strengths are:

- It is the only global patent classification system as all patent offices are required to assign IPC classes to their patents.
- IPC classes cover all technologies.
- Although it was only created in 1971, earlier patents have been retrospectively classified with IPC classes.
- It is updated annually. If any patents are reclassified due to this annual update, then the patents affected by the IPC class updates are also updated.

The weakness of the system is:

- Inconsistency in application of IPCs due to multiple patent offices each executing this activity with their own groups of examiners classifying patents.
- In Derwent Innovation, DWPI data includes an IPC field that comprises of all the IPC classes applied to any patent within the DWPI family. This is added to the searchable fields for each patent in the DWPI family. The inclusion of this IPC data in the DWPI data helps to compensate for the inconsistency in application of IPCs.

Note that CPC and the Japanese national classification systems use IPC as a start point and then add additional layers of detail.

CPC (Co-operative Patent Classification system)

In 2013, the Cooperative Patent Classification (CPC) system was launched by the USPTO and European Patent Office. It is based on the European Patent Offices ECLA (European Classification) system; ECLA was itself based on IPC with additional levels of detail added. Since its launch in 2013, several other patent offices around the world -including the Chinese, Korean, Russian, British and Swedish patent offices- have also started to classify their patents using the CPC system. Furthermore, the EPO examiners classify patents from other patent offices around the world that publish in any of the three working languages of the EPO (English, French and German) and the USPTO propagates the classes assigned to the US patents to other patents in the same simple INPADOC family. CPC classes have been retrospectively applied to older patents either by using the concordance with the ECLA codes previously applied to the patents or in the case of older US patents by the US examiners classifying them with CPC.

The main benefits of using CPC:

- It is far more detailed in many technology areas than the IPC classification system and it also contains two additional features that help with more precise searches: (1) the CPC primary class and (2) the CPC combination codes which we will look at in more detail later.

- As the CPC is applied by a smaller group of examiners, it is applied more consistently than the IPC. EPO examiners, who are currently responsible for the largest number of CPC classes, are trained for 3 years in the correct application of these codes before they are allowed to apply them.
- CPC is updated at least quarterly to reflect changes in technology, which means the system is great for fast moving technology areas, and older patents are then reclassified according to the newly created classes.

CPC has the following weaknesses:

- Coverage is not yet fully global, although as coverage expands this will become less of a problem. For instance, for around 70% of recent patents have CPC classes on them. Derwent Innovation overcomes this with the field called “any CPC or IPC”, enabling you to use one field to search with the option to enter the CPC classes you wish to search alongside the best match IPC classes. An examples of this will be given later on in this document.
- Limited use in automated alerts. As only US patents have CPC classes available on the day of publication and it may be up to six months before they are available for some documents, it is not recommended to use them in alerts.
- Maintenance of saved search strategies needs to be vigilant due to the high frequency of CPC updates. As CPC classes in fast moving technology areas can change frequently, you must regularly check you search strategies to ensure the CPC fields are still valid.

Japanese FI codes

Japanese FI codes are based on the IPC hierarchy but add additional sub divisions of the sub-group IPC classes. As these codes are designed to classify only Japanese patents, the greatest levels of detail are in those technology areas where Japanese industry is strongest. They can be very useful for monitoring Japanese patenting activity; but as they are not applied to non-Japanese patents, they are of no use in monitoring global patenting activity. Also, note that the Japanese patent office does not apply CPC codes, As a result, a searcher would have to search both CPC and FI codes to cover all the major patent authorities with a more in-depth classification system that IPC. To do so, you would need to identify the appropriate terms in each system as the two systems are independent of each other. In particular, CPC has an extra section (Y) for new emerging technologies whereas FI codes do not.

Japanese F terms

Japanese F terms are unlike the other classification systems because they classify patents from multiple aspects. Most classification systems take a technology and classify it according to a particular aspect of that technology, forming a hierarchy; In contrast, F terms are non-hierarchical. This allows for far more precise searching because they get around the problems of patents which cut across different aspects of the hierarchy. Each F term code is equated to an FI Code or range of FI Codes. Theme codes are usually associated with a number of four-character viewpoints or term codes, designating such technical aspects as material, operation, product, purpose, structures, packaging, applications, etc. Clearly the benefit is the high accuracy, the disadvantage is the complexity making it difficult to identify the best terms to search and the fact that they are only applied to Japanese patents and focus mainly on technologies used widely in Japan.

Locarno class

The Locarno classification system developed in 1968 and is applied to design patents and industrial designs. Only US design patents are available in Derwent Innovation. Industrial designs from other authorities are searchable on our trademark and design platform *Serion*®. In Derwent Innovation, only the high level codes comprised of the class are searchable, and are comprised of a two-digit number class + the two-digit number subclass e.g. 0106 for animal foodstuffs. The design patents are also classified using the CPC and the US classes (interestingly US classes still seem to be applied to design patents), both of which have look up tools in Derwent Innovation whereas Locarno class does not. It is therefore recommended you use these systems rather than Locarno class to search for designs. If you wish to review Locarno classes please see:

<http://www.wipo.int/classifications/nivilo/locarno/index.htm?lang=EN>

DWPI class and DWPI Manual codes

The two Clarivate Analytics proprietary systems are DWPI Manual Codes and DWPI class. The DWPI class is a very high level classification system designed to identify a broad technology area, for example D15 for water treatment. The system was developed in and since then, the DWPI classes have been applied to all covered documents. The classes applied reflect the inventive features and areas of application of the invention. The main uses of these classes are (a) restricting a search to a specific technology area or (b) using DWPI class analysis to review the different technologies found in patents found by a key word or assignee search.

The DWPI Manual Code is a more detailed classification system; and in broad terms, it has a similar degree of specificity to the IPC class, although the system was developed independently of the IPC. The first Manual Codes were created in 1963, though at that time they were only applied to pharmaceutical patents. Agrochemistry classes were added in 1965, polymers classes in 1966, followed by other chemical technologies in 1970, electrical engineering starting in 1980 and mechanical engineering codes being phased in between 2005 and 2015. Generally, the most detailed codes are in the chemical area, specifically in the pharmaceutical and biotechnology areas. In these specific areas, the Manual Code is more detailed than the IPC. In the mechanical engineering area it is less detailed. The engineering and other general technology area codes do have a broad concordance with IPC; for anyone interested in searching in these areas, it is possible to look up this concordance in a downloadable PDF document (see page 359 onwards of

http://ips.clarivate.com//m/pdfs/epi_manualcodes3.pdf

The main benefits of using DWPI Manual Codes are the following:

- Applied independently of IPC, CPC, etc. so you are getting a genuine second opinion on what the key features of the invention are
- Always cover the applications as well as the inventive step unlike IPC
- They are applied by a small team of people working together rather than examiners working independently of each other in over 100 patent offices around the world and so are generally more consistent
- Updated annually to reflect customer feedback.

The main disadvantages are the following:

- No retrospective reclassification. In order to search back in time, you must take into account previous codes (these will be indicated in the documentation)
- Less detailed in certain technology areas than IPC (mainly general and mechanical engineering).

Comparison of Classification Systems

The following table compares the different systems in terms of number of codes, coverage and precision level. Coverage is based on patents published in 2015; for the newer classification systems, CPC and Manual Codes, the coverage may be less for older patents. The precision level indicated in the table reflects an average across all technology areas, it may be greater in some and less in other, the larger the number, the more specific the system.

Classification system	% Database Coverage*	Number of Codes	Precision Level**
IPC	100	70,000	3
CPC	70	250,000	4
JP FI codes	10	170,000	4
JP F terms	10	350,000	5
Derwent Class	95	591	1
Derwent Manual code	85	26,748	3

*For 2015 patents

**Averaged across all technology areas 1=Least precise, 5=Most precise

Finding the Right Class to Use

Method 1

If you already have a reference patent document from which to start, then simply open up the record and jump down to the classification part of the patent record and look at the classes that are listed. For most classifications, except Locarno class, you may hover over the class with your cursor; it will show the definition of the class as a term tip. Check that this class information fits in with the subject matter of the patent. If it does, click on the class (hyperlinked) and Derwent Innovation will execute a search and deliver a results list of other patents that have received the same class. If the patent has multiple classes applied, it would probably be a good idea to run a search on all the codes linked by **AND** to get a more focussed answer set. When

multiple classes are applied to a single patent record, this suggests a combination of multiple technologies is involved. To search for multiple classes, go to the Fielded Search, copy and paste the classes from the patent record into the IPC search box, Fielded Search then remember to add an AND between each of the listed classes.

Method 2

If you do not have a patent record from which to start, execute a keyword search in the **Title** field, searching one or two keywords that describe the topic you want to investigate. Then, use the Results Dashboard to identify the most commonly applied class(es). Review the class analysis from Results Dashboard, check to ensure this looks relevant; if so, you use it as a class within your search parameters. If two classes have roughly equal numbers of documents in the class analysis, you may wish to search both of them. To do so, link them with an OR if they seem to be alternatives, or link them with an AND if it looks like the classes need to be used together to describe the technology.

Method 3

Browse the class hierarchy by clicking on the *browse* button beside the search box on the Fielded Search form. Alternatively, use resources on the Expert Search form and select the classification system with which you wish to search. Then, you can either (a) expand the hierarchy by clicking on the + symbols beside the section letters for the term that best fits your area of interest, or (b) type a single keyword, then click search. The classes that match your search term will be displayed in the box below the search box. Next, select the check boxes beside the classes you wish to use, remembering to check they are in an appropriate hierarchy (e.g. if you are looking for living cells, check the classes not in a hierarchy relating to electrical components). If you select more than one term, the classes will be listed and linked by an OR operator as a default. You may change the OR by replacing it with an AND or even NOT, depending on how you decide to search the classes in your patent search.

Versions of the patent office classification systems

Many of the patent office classification systems have three versions, current, original and any. The original version is the one that appears on the front page of the document as issued or for ECLA/CPC the original class assigned by the examiner. The current version is the most appropriate class in the most recent update of the system for that patent. For patents previously classified in an older version of the IPC this update will have been applied as part of the automated classification update. The any version of the class (eg IPC any) will search across the original and current versions of the code. An interesting point of note is that although US patents are originally classified by US examiners EPO examiners still also apply CPC classifications to these patents for their own internal use and these appear as the current version of the class a few months after the original US examiner applied classifications. These classes will subsequently be replaced by automated reclassifications as and when necessary. I would normally recommend searching either the current or any version of the classification as this allows you to search across all patents using the current version of the system which is the one available in the Derwent Innovation look up tool.

Search examples

Example 1: Electric toothbrush

- Select the DWPI manual codes as the field to search

- Click on the browse button, entering the search term *toothbrush** in the search box. The code X27-A02A3A appears and has the definition electric toothbrushes
- Select it by clicking in the check box to select it, and then click save. You will see it populates in the search box.

Note: one of the patents found was US20090226241A1, which has the title ultrasonic toothbrush with irrigation and vacuum. It is clearly relevant but would have thought of using this term - ultrasonic?

Also, you could have identified this code by searching for *electric* toothbrush* in the title field, as the most common manual code we see applied to the patents in a results list for that search is indeed X27-A02A3A.

Example 2: Cat food

This search requires a combination of keywords and classes. For this search, we will use IPC.

- Browse the class hierarchy and locate *A23K feeding stuffs specially adapted for animals* as a good match for this topic.
- Expand the IPC class list (clicking on the + for expand) and locate *A23K000118 is food stuffs especially adapted for particular animals* as the best fit. Note there are no further sub-divisions that would specify 'cat'. However, as patents about cat food would certainly receive this class, we need to further focus the search by adding in keywords for cat (EX: cat, feline, kitten and their plurals).

The search will look something like this

```
CTB=(cat*1 or feline*1 or kitten*1) AND ICR=((A23K000118)) AND DP>=(19970101);
```

Amongst the patents we found was JP03821759B2, which has the title *Feed for cats and a method of using the same*, other patents refer to feline beverages and fodder for felines.

Example 3: CPC primary codes

Continuing to use the cat food example, let us investigate the more precise CPC classification system.

- Browse the CPC hierarchy, locate the A23K Fodder Section, note the classes are far more detailed in this area than IPC.
- Find class *A23K005040* defined as *for carnivorous animals e.g. cats or dogs*. It even sub-divides further into subclasses for *dry, semi moist or moist*. Please note that selecting the top term in Derwent Innovation at this level does not automatically include the terms below it; if you want A23K005040 and the subclass(es), you must select those separately to include them.
- Use this CPC code with the keywords for cat in your search string:

```
ACP=((A23K005040)) AND CTB=(cat or kitten or feline) AND DP>=(19970101);)
```

- This search will generate an answer set that includes many very relevant patents but also some less relevant ones such as *IN201007572P4 title processing biomass*. This patent covers a technology that can be used in pet food, thus relevant, but it is not a good match for the topic.
- Change the search field to *CPC primary* and search the same class. This will reduce the number of patents retrieved to a more manageable number (EX: 194 patent families) and eliminate the Indian patent mentioned above (IN201007572P4).
- An alternative way to include all subclasses: if the CPC classes all have the same first characters replace the final zeros with an * but do check this is the case first. For example for the cat food search we could use A23K00504* to cover the classes A23K005040 (food for carnivorous animals) and its sub-divisions, A23K005042 (Dry feed), A23K00545 (Semi-moist feed) and A23K00548 (moist feed)

Example 4: CPC combination codes

The main inventive feature in some patents involves the combination of several technology concepts. For example, a patent about a polymer composition or a patent about the production of a chemical using a particular reaction. In such cases, it would be useful if all the classes applied to these concepts were associated together. This is precisely what CPC combination codes enable. CPC combination codes exist as a set of fields, each of which contains the combination of codes that describe a particular concept (e.g. composition or chemical process). CPC combination codes may only be searched in the Expert Search form using field tag *CPCC*. The combination of codes should be linked by the SAME operator, as this restricts to patents where these codes represent the same CPC combination code field.

- For example, consider a fertilizer mixture comprising a superphosphate, potassium and iron. On Expert Search, use the CPC look up tool in Resources to find this code.
- Enter the field ACP with the codes linked by OR into the search box. Edit the search string to read:

CPCC=(C05B000102 same C05D000102 same C05D000902)

This finds 119 patent families.

See the appendix for more information about CPC combination codes, including further examples.

Example 5: Japanese F terms

Let's return to the cat food example, this time looking at the Japanese F terms. As mentioned, this classification type classifies patents from multiple aspects.

- Consider the example of dry cat food with medicinal properties. The IPC pet food hierarchy is categorized in this system in terms of the type of food; for dry food we search for the term *dry food* and find *2b005 aa02 dry feed*.
- We need to specify for cats, and we locate *2B150 AA06 dogs and cats*.

- To restrict to *medicinal properties*, we look to the type of invention hierarchy and find the class 4C086 AA01 medicinal use.
- Search on this combination of terms:

FTC=((4C086AA01) AND (2B005AA02) AND (2B150AA06)) AND DP>=(19970101);

This locates 33 DWPI families, including the patent JP2009517484A with the title *Dry food composition useful for preventing or treating urolithias in animal, e.g. dog or cat*.

Note: a benefit of using DWPI data in your search is the Japanese classifications are also searching for patents from other authorities in the same family as a Japanese patent; as a result, this search found US and WO patents too.

Example 6: Finding patents about the type of mouse you attach to a computer

When you run a Fielded Search on the word *mouse*, the results include patents from Pharmaceutical companies like Novartis and computer companies like Microsoft. This is because “mouse” has two meanings: (1) a small rodent or (2) a pointing device for a computer. Look up the Derwent Class for computer peripherals (T04) and include the term *mouse* in your search and the results include only patents from computer companies:

CTB=(mouse) AND DC=((T04)) AND DP>=(19970101);

Appendix: CPC Combination Codes

Combination codes are a more sophisticated application of CPC, linking together classes that (a) describe different aspects of the same invention and (b) relate directly to each other. The most common uses of these codes are chemical synthesis patents and chemical composition patents, but they are occasionally applied in other areas as well. By searching CPC combination codes, you are able to get a far more focused results set. The results are more focused because as you only get matches when the two concepts you searched are both relevant to the document AND also directly related to each other. In contrast, conventional CPC searching will give you results that mention the two concepts in the patent, even if the concepts are not mentioned in a manner that directly connects them to each other.

Specific areas for which CPC Combination Codes are widely used:

- The product and reagent and / or method (Mostly C07C (organic compounds) and C12N (DNA/RNA etc.)
- Polymers present in polymer blends
- Monomers present within copolymers
- Cement mixtures (the constituent components plus a code for cement)
- Mixtures of pesticides or fertilizers
- Filtration techniques / processes
- Mixtures of pharmaceutically active ingredients.

Example 1: let's look for patents that describe the synthesis of acrylic acid esters by reaction of acrylic acid with a hydroxyl group containing compound.

- CPC code for the acrylic acid esters is namely *C07C 69/54* (input as *C07C006954* in Derwent Innovation) and the CPC codes for *preparation of esters by reacting a carboxylic acid with a hydroxyl group compound* is *C07C 67 / 08* (input as *C07C006708* in Derwent Innovation).
- Search these two subjects using CPC combination codes: `(CPCC=((C07C006708) SAME (C07C006954)));`

Today, for this example, we get 2754 records in the results set, including US9403750B2 which has the DWPI title: *Producing 2-octyl acrylate by reaction of acrylic acid and 2-octanol in presence of e.g. polymerization inhibitor, by entraining water by distillation column in form of heteroazeotropic mixture and then subjecting to separation process*

- Another example of a patent found by searching a combination of these codes would be WO2016002649A1 which has the DWPI title

Production of isobutylene used in manufacture of methacrylic acid for manufacture of methyl methacrylate used for preparing resin, involves dehydrating isobutanol in presence of organic acid and/or organic acid ester in reaction system

Example 2: A fertilizer mixture of a super phosphate, potassium and iron

- Superphosphate C05B 1/02
- Potassium C05D 1/02
- Iron C05D 9/02
- The search string would be CPCC=(C05B000102 same C05D000102 same C05D000902);
- This search finds 138 patent records, including CN104609965A which claims the following fertilizer:

Fertilizer (1000kg) comprises 125kg nitrogen, 80kg phosphorus pentoxide, 150kg potassium oxide, 7.5kg borax, 7.5kg EDTA iron and 7.5kg zinc chloride.

Example 3: Copolymers formed from polysiloxanes and polycarbonates

- Codes Polycarbonates Polycarbonates C08L 69/00
- Polysiloxane C08L 83/10
- Search these in combination codes

CPCC=(C08L006900 same C08L008310);

and find 774 records including US20130313493A1:

DWPI Title: Flame retardant composition useful in article comprises polycarbonate composition comprising post-consumer recycle polycarbonate and polysiloxane-carbonate copolymer and phosphazene compound

This patent shows the value of CPC combination codes, as it describes several possible copolymers, each of which have its components indexed in a separate group.

Current Linked CPC	
C08L 69/00 , C08K 5/5399 , C08L 51/04 , C08L 83/10	Invention
C08L 69/00 , C08K 5/5399 , C08L 55/02 , C08L 83/10	Invention
C08L 69/005 , C08K 5/5399 , C08L 55/02 , C08L 83/10	Invention
C08L 69/005 , C08K 5/5399 , C08L 51/04 , C08L 83/10	Invention
C08K 5/5399 , C08L 69/00	Invention
C08K 3/22 , C08L 69/00	Invention
C08L 69/00 , C08K 3/22 , C08K 5/5399 , C08L 69/00	Invention
C08L 69/00 , C08K 5/5399 , C08L 69/00 , C08L 83/10	Invention
C08L 69/00 , C08K 5/5399 , C08L 83/10	Invention
C08L 69/005 , C08K 5/5399 , C08L 69/00 , C08L 83/10	Invention

C08L 69/005 , C08K 5/5399 , C08K 7/14 , C08L 83/10	Invention
C08L 67/02 , C08K 5/5399 , C08K 7/14 , C08L 83/10	Invention
C08K 7/02 , C08L 69/00	Invention
C08K 7/02 , C08L 69/005	Invention
C08K 5/5399 , C08L 69/005	Invention
C08K 7/14 , C08L 69/00	Invention
C08K 7/14 , C08L 69/005	Invention
C08L 69/00 , C08K 5/5399 , C08K 7/14 , C08L 69/00 , C08L 83/10	Invention
C08L 69/005 , C08K 5/5399 , C08K 7/14 , C08L 69/005 , C08L 83/10	Invention
C08L 83/10 , C08K 5/5399 , C08L 69/00	Invention
C08L 69/00 , C08K 5/5399 , C08L 83/04 , C08L 83/10	Invention
C08L 83/10 , C08K 5/5399 , C08L 69/00 , C08L 83/04	Invention
C08L 69/00 , C08K 5/5399 , C08L 83/00 , C08L 83/10	Invention
C08L 83/10 , C08K 5/5399 , C08L 69/00 , C08L 83/00	Invention

Searches on CPC combination codes

CPC combination codes are searched using the field tag CPCC. This is only available in the Expert Search form.

To search for patents where the selected codes appear in the same CPC combination set, you must use the SAME operator. If you use the AND operator you will simply get back patents in which both terms were indexed in this field, not necessarily within the same combination set - so they may not be directly related to each other.

It is not recommended you search using AND as this defeats the main purpose of using CPC combination codes. If you are looking for patents in which two specific code combinations are present, then use AND in this manner:

`CPCC=((CPC symbol 1 SAME CPC symbol 2) AND (CPC symbol 3 SAME CPC symbol 4));`

To use the CPC lookup tool. Select it from the list of Resources, and then select the codes you want to use. Next edit the term that appears in the Expert Search form by changing the ACP= () to CPCC= () and if two or more terms are included changing the proximity operators from OR to SAME.

In addition to searching for codes, there is an option to search for the position of the code within the CPC combination set. Do as follows:

- `CPCC=(CPC symbol.N)` where N is the position of the CPC class within the combination set.

For example: `CPCC=(C08L006900.1)` will find patents in which the CPC symbol C08L006900 is the first term in the combination set.

- Ranges can also be used:

`CPCC=(C08L006900.1-3)` will find patents in which the CPC symbol C08L006900 is one of the first 3 terms in the combination set.

- It is also possible to use open ended ranges such as `CPCC=(C08L006900.3-)` which will find patents in which the CPC symbol C08L006900 is at position 3 or later in the combination set.
- Searching for number of times a particular code occurs in the same CPC combination set.

`CPCC=(CPC symbol#N)` Again N can represent a number or a range of numbers.

For example `CPCC=(C08L#2-3)` will find patents in which CPC symbols in the C08L hierarchy appear 2-3 terms in at least one CPC combination set such as CN1033507200A which contains the following CPC combination sets

Current Linked CPC	
C08L 23/12 , C08L 23/0815 , C08L 23/12 , C08K 13/04 , C08K 7/14	Invention
C08L 23/12 , C08L 23/12 , C08K 13/04 , C08K 7/14	Invention
C08L 23/12 , C08L 23/0815 , C08L 23/12 , C08L 67/00	Invention
C08L 23/12 , C08L 23/0815 , C08L 23/12 , C08K 13/04 , C08K 7/06	Invention
C08L 23/12 , C08L 51/06 , C08L 23/12 , C08K 13/04 , C08K 7/14	Invention
C08L 77/02 , C08L 77/02 , C08K 13/04 , C08K 7/14	Invention
C08L 77/06 , C08L 77/06 , C08L 77/10	Invention
C08L 77/02 , C08L 77/02 , C08L 77/10 , C08L 23/0815 , C08L 51/06	Invention
C08L 67/02 , C08L 67/00 , C08K 13/04 , C08K 7/06	Invention
C08L 25/06 , C08L 23/12 , C08L 23/06 , C08K 13/04 , C08K 7/14	Invention
C08L 67/02 , C08L 67/02 , C08K 13/04 , C08K 7/14	Invention
C08L 23/12 , C08L 23/16 , C08L 23/12 , C08L 23/0853 , C08K 13/04 , C08K 7/06 , C08K 7/14	Invention
C08L 59/00 , C08L 9/02 , C08L 59/00 , C08L 53/02 , C08K 13/04 , C08K 7/14 , C08K 7/04	Invention
C08L 27/06 , C08L 27/06 , C08K 13/04 , C08K 7/14	Invention

- Restrict search to inventive or additional classes.

CPC combination codes can relate to the invention or be additional, this is always determined by the first code in the set, if this relates to the invention then the whole set is classed as inventive, if it is additional the whole set is treated as additional. To search for this search as follows

CPCC=(CPC symbol SAME type) where type is INV for inventive or ADD for additional

E.g. CPCC=(C08L006900 SAME INV) will find patents where this class is present and relates to the invention