

Using the Rapra Classification Code to Find the Most Relevant Information on the RAPRA: Rubber and Plastics Database (Dialog File 323 and Dialog DataStar RAPR)

Searching a database is basically a process of matching your query terms against the words in a document. However if the amount of information retrieved is overwhelming or more than can be easily or rapidly scanned you need to be able to narrow down the search. You also want the abstracts you do actually look at to be the most relevant ones to your needs. One effective way to do this in RAPRA: Rubber and Plastics (File 323 on Dialog, and RAPR on Dialog DataStar) is to make use of the Rapra Classification Code. The original version of the code for the systematic classification of scientific, technological and commercial information on rubber was devised by the late T.R. Dawson for the use of the Information Centre of the Research Association of British Rubber Manufacturers known today as Rapra Technology Ltd. In the early 1960's Rapra widened the scope of its information service to incorporate all plastics. This necessitated a revision of the classification and in 1964 Rapra, in collaboration with the British Plastics Federation and other industrial organisations developed a new code. In the intervening years since 1964 many amendments and improvements have been developed and the latest version of the code was published in 1994.

The code employs a mixed notation of numbers and letters for the identification of classes and is arranged in a decimal order, with numbers taking precedence over letters. The main classes are as follows:

- 0 General
- 1 Industrial Organisation and Administration; Economics
- 2 Machinery, Plant, Test Equipment and Instruments
- 3 Raw Materials, including Monomers
- 4 Polymers and Resins
- 5 Compounding Ingredients (Additives) and Solvents, Processing Aids
- 6 Applications of Polymers
- 7 Designs; Standards and Specifications; Sources and Production; Polymerisation
- 8 Processing and Treatment
- 9 Properties and Testing

Each of these codes is then further subdivided and can in fact become quite complicated or detailed. For example:

```

4 POLYMERS AND RESINS
...
41 NATURAL POLYMERIC MATERIALS
...
42 ADDITION POLYMERS
...
43 ELIMINATION (CONDENSATION) POLYMERS
...
44 ELIMINATION (CONDENSATION) RESINS
  44C PHENOLIC RESINS
    44C1 Monohydric phenol aldehyde resins; Novolaks, resols
      44C11 Phenol formaldehyde
      44C12 Phenol furfural
      44C13 Cresol formaldehyde; cresylic resins
      44C14 Xylenol formaldehyde
      44C15 Cashew nut shell resins
    44C2 Polyhydric phenol aldehyde resins
      44C21 Resorcinol formaldehyde
  
```

In the following example you can see how the classification code can be used in combination with keywords (thesaurus terms) for improved precision. For example, to find articles on polyurethane (PU) foam a search in the descriptor field would use the following terms:

```
S (PU OR POLYURETHANE)/DE AND FOAM/DE (for Dialog)
..S (PU OR POLYURETHANE).DE. AND FOAM.DE. (for Dialog DataStar)
```

This search will undoubtedly retrieve articles describing PU foams, but would also discover articles discussing polystyrene foam and polyurethane adhesives because the two concepts of PU and FOAM are both included. Alternatively a retrieved article may be discussing foams in general with only a peripheral mention of PU. Equally well it may be an article about PU with only a cursory mention of the foam applications of PU.

```
s (pu or polyurethane)/de and foam/de
    32007 PU/DE
    36711 POLYURETHANE/DE
    26318 FOAM/DE
    S1 12863 (PU OR POLYURETHANE)/DE AND FOAM/DE
?t sl/ti/1-5

    1/TI/1
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: AMINE CATALYST FOR PRODUCING POLYURETHANE AND POLYISOCYANURATE

    1/TI/2
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: ADVANCED MATERIALS FOR ROTATIONAL MOULDING

    1/TI/3
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: SOFT POLYURETHANE FOAM, METHOD OF PRODUCING THE SAME AND VEHICLE
INTERIOR MEMBER USING THE SAME

    1/TI/4
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: LOW DENSITY RIGID POLYURETHANE FOAMS HAVING IMPROVED SUBSTRATE
ADHESION CHARACTERISTICS

    1/TI/5
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: HCFC-141 BLOWN FOAMS WITH LOW LEVELS OF HCFC-1131A BY-PRODUCTS

?t sl/7/1-2

    1/7/1
DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 1999 RAPRA Technol Ltd. All rts. reserv.

00730381
TITLE: AMINE CATALYST FOR PRODUCING POLYURETHANE AND POLYISOCYANURATE
AUTHOR(S): Tokumoto K; Tamano Y; Okuzono S
CORPORATE SOURCE: Tosoh Corp.
PATENT NUMBER: EP 909770 A1
PATENT DATE: 19990421
PATENT COUNTRY/KIND CODE: EP A1
APPLICATION NUMBER: EP 98119531
APPLICATION DATE: 19981015
PRIORITY NUMBER: JP 97281841; JP 981476
PRIORITY DATE: 19971015; 19980107
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JOURNAL ANNOUNCEMENT: 199907 RAPRA UPDATE: 199912
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 SUBFILE: (R) RAPRA
 ABSTRACT: This comprises a quaternary ammonium compound of given formula and exhibits high activity in the production of PU and polyisocyanurate foams, which have less odour. Foams produced therefrom possess high fire retardance, high curability, high retarding effect and low corrosiveness.
 1/7/2
 DIALOG(R)File 323:RAPRA Rubber & Plastics
 (c) 1999 RAPRA Technol Ltd. All rts. reserv.
 00730324
 TITLE: ADVANCED MATERIALS FOR ROTATIONAL MOULDING
 AUTHOR(S): Henwood N
 CORPORATE SOURCE: Matrix Polymers Ltd.
 CONFERENCE PROCEEDINGS: 4th Rotamoulding Conference. Conference proceedings.
 CORPORATE EDITOR: BPF
 SOURCE: London, 1995, paper 2. 835
 JOURNAL ANNOUNCEMENT: 199907 RAPRA UPDATE: 199912
 DOCUMENT TYPE: Conference Papers
 LANGUAGE: English
 SUBFILE: (R) RAPRA
 ABSTRACT: Details are given of some advanced materials which have been developed for rotational moulding applications. They include polyethylenes, super-linear polyethylene, and Rislan nylon 11 and 12. Future developments include Orgalloy nylon/PE grades, and rotomouldable PU grades. Features and benefits of polyethylene and super-linear polyethylenes are examined, their characteristics and limitations.

Using the classification helps to retrieve articles with a greater probability of relevance. It also reduces the number of records retrieved. Searching on the following ensures a more precise retrieval of relevant documents:

S CL=(43C6? AND 6124) for Dialog
 ..S 43C6\$.CC. AND 6124.CC. for Dialog DataStar

(43C6? or 43C6\$ is the truncated classification for PU and 6124 is the classification code for foams)

```
?s cl=(43c6? and 6124)
      24101 CL=43C6?
      16792 CL=6124
      S2 7566 CL=(43C6? AND 6124)

?t s2/ti/1-5
  2/TI/1
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: AMINE CATALYST FOR PRODUCING POLYURETHANE AND POLYISOCYANURATE

  2/TI/2
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: SOFT POLYURETHANE FOAM, METHOD OF PRODUCING THE SAME AND VEHICLE
INTERIOR MEMBER USING THE SAME

  2/TI/3
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: LOW DENSITY RIGID POLYURETHANE FOAMS HAVING IMPROVED SUBSTRATE
ADHESION CHARACTERISTICS
```

2/TI/4
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: RESILIENT POLYURETHANE FOAMS OF POLYDIENE DIOLS AND TACKIFYING RESIN

2/TI/5
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: POLYETHER POLYOL AND POLYURETHANE COMPOSITIONS PROTECTED AGAINST
OXIDATION AND CORE SCORCHING

This excludes articles that only have one or neither of these classifications. If this reduces the number of records too much, you can increase the retrieval by including the following phrases 'PU FOAM' or 'PU FOAMS' OR 'POLYURETHANE FOAM' or 'POLYURETHANE FOAMS' as search terms in the title or abstract fields.

S (PU OR POLYURETHANE)(W)(FOAM OR FOAMS)/TI,AB for Dialog
..S (PU OR POLYURETHANE) ADJ (FOAM OR FOAMS).TI,AB. for Dialog Datastar

The use of the classification codes can also retrieve articles on similar topics where different terminology has been used. For example, using the classification code 8(13) and its subdivisions using

S CL=8(13)? for Dialog
..S 8-13-\$.CC. for Dialog DataStar

retrieves articles that might have terms such as RECYCLING or RECLAIMING or RECLAMATION contained in the title, abstract or used as descriptor terms. Note that on Dialog DataStar hyphens are substituted for parentheses in classification codes.

?s cl=8(13)?
S8 10831 CL=8(13)?

?t s8/5/1
8/5/1

DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 1999 RAPRA Technol Ltd. All rts. reserv.

00730511

TITLE: PRODUCT IDEAS FOR RECYCLATES

SOURCE: Plastverarbeiter; 48, No.4, April 1997, p.88/90

ISSN: 0032-1338

CODEN: PLARAN JOURNAL ANNOUNCEMENT: 199907 RAPRA UPDATE: 199912

DOCUMENT TYPE: Journal Article

LANGUAGE: German

SUBFILE: (R) RAPRA

ABSTRACT: Pit systems for drainage water made from green materials is the latest idea which has been brought to life by the firm of Planex GmbH in Aurach, in collaboration with the firm of Rehau AG & Co. in Rehau. This product complements the considerable product range such as palisades, posts, doorsteps, sills, fencing and plant pots, which Planex manufacture from used thermoplastics, sorted, unsorted or partly contaminated. Discussion also covers mixtures of polyolefins, polymers, polyesters and PVC, as well as market share, processing and evaluation of success.

SUBJECT HEADING (RAPRA): COMPANY INFORMATION, Planex, Rehau, recycling, furniture, horticultural applications, water treatment, markets, productivity; RECYCLING, furniture, horticultural applications, water treatment, thermoplastics, olefin polymers, ester polymers, vinyl chloride polymers, markets, productivity; FURNITURE, recycling, thermoplastics, olefin polymers, ester polymers, vinyl

chloride polymers, markets, productivity; HORTICULTURAL APPLICATIONS, recycling, thermoplastics, olefin polymers, ester polymers, vinyl chloride polymers, markets, productivity; WATER TREATMENT, recycling, thermoplastics, olefin polymers, ester polymers, vinyl chloride polymers, markets, productivity; MARKETS, thermoplastics, olefin polymers, ester polymers, vinyl chloride polymers, productivity; PRODUCTIVITY, thermoplastics, olefin polymers, ester polymers, vinyl chloride polymers, markets
 COMPANY NAME: PLANEX GMBH; REHAU AG & CO.
 IDENTIFIERS (Non-Polymer Terms): WATER
 GEOGRAPHIC LOCATION: EUROPEAN COMMUNITY; EUROPEAN UNION; GERMANY; WESTERN EUROPE
 DESCRIPTORS: ALKENE POLYMER; COMMERCIAL INFORMATION; COMPANIES; COMPANY; DOOR SILL; DRAINAGE; ECONOMIC INFORMATION; FENCING; GRAPH; JOINT VENTURE; MANUFACTURE; MARKET SHARE; OLEFIN POLYMER; PARTNERSHIP; PLANT POT; PLASTIC; POLYALKENE; POLYMER; POLYOLEFIN; POLYVINYL CHLORIDE; POST ; PRODUCT; PROFIT; PVC; RECYCLATE; RECYCLED; THERMOPLASTIC; THERMOSET
 RAPRA CLASSIFICATION CODE: 06; 8(13); 6D2; 63Ag; 42C1; 42C382; 16; 11
 CATEGORY CODES: CB; SN; PC; QP; KM; CC; CF

Alternatively the classification code can also be used to find broad subject areas. For example, using

95? (for Dialog)

95\$ (for Dialog DataStar)

retrieves references to articles discussing all the various types of mechanical properties - such as stress or strain, impact resistance, abrasion resistance, creep etc.

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?s cl=95?
    s14 47881 CL=95?
?t s14/ti/1-5
  14/TI/1
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: PROPERTIES OF POLYETHYLENE 2,6-NAPHTHALATE COPOLYESTERS CONTAINING
      VARIOUS DIALCOHOLS

  14/TI/2
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: DEVELOPMENT OF MOLECULAR ORIENTATION AND MECHANICAL PROPERTIES IN
      POLYETHYLENE TEREPHTHALATE

  14/TI/3
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: SOFT POLYURETHANE FOAM, METHOD OF PRODUCING THE SAME AND VEHICLE
      INTERIOR MEMBER USING THE SAME

  14/TI/4
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: POLYPROPYLENE IMPACT COPOLYMERS OF HIGH ETHYLENE CONTENT

  14/TI/5
DIALOG(R)File 323:(c) 1999 RAPRA Technol Ltd. All rts. reserv.
TITLE: POLYPROPYLENE IMPACT COPOLYMERS OF HIGH CLARITY
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Thus the classification code can save you time and energy in thinking of and typing all the possible terms that may have been used and can also ensure that these concepts are an important part of the article.

The Rapra Classification Code is available for purchase as a separate publication, price £40 (or US\$70) plus £5 total post and packing for UK, or £5 post and packing per copy for overseas (or \$9 post and packing per copy for the USA). The code is supplemented by a general index containing around 4000 terms and a

polymer index of around 900 polymers (including popular abbreviations and full names) allowing easy retrieval of the relevant codes.

Alternatively the classification code is available as part of the Rapra Abstracts Online Users Manual, which also includes chapters on how to search the database on the various online Host systems including Dialog and Dialog DataStar. The Online Users Manual is available price £75 (or US \$130) plus £5 total post and packing for UK, or £5 post and packing per copy for overseas (or \$9 post and packing per copy for the USA).

To order copies of the classification code or online users manual please contact Publications Sales, Rapra Technology Ltd., Shawbury, Shrewsbury, Shropshire, SY4 4NR, UK. Telephone +44 (0)1939 250383 or fax +44(0)1939 251118 or e-mail polymerlibrary@rapra.net

For further help in searching the database please contact polymerlibrary@rapra.net.

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