Searching DWPI[SM] polymer indexing on STN®

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Agenda

- Why use Polymer Indexing
- History of Polymer Indexing
- Subject coverage
- Structure of the codes
- Linking of codes
- Search examples
- Manuals & user aids

Why use Polymer Indexing

- The enhanced Polymer Indexing system was created in conjunction with the main users of the product
  - It is the system they said would meet their needs for searching polymer related patent information
- Searching Polymer Indexing allows you to make use of our subject experts analysis and understanding of the patent
  - The analyst will read through the patent document and identify what the key polymer related concepts are and apply the relevant codes
  - So unlike keyword searching you don't get hits based on trivial references to a concept or cases where it says in the patent anything except that concept
    - For example searching on the word polyethylene would give you a hit on a patent which stated it used any polyolefin other than polyethylene

Why use polymer indexing 2

- The polymer indexing system utilises a unique code linking system to ensure you only get hits when concepts which are directly related are mentioned so you get a more focused answer set with little or no noise
  - For instance with most systems a patent talking about an item of clothing made out of polyester wrapped in a polypropylene sheet would simply code the 4 concepts, polypropylene, polyester, sheet & clothing
    - Polymer indexing codes clothing linked to polyester & sheet linked to polypropylene so you would not get a hit on a patent about a polyester sheet or polypropylene clothing

Help is available

- Thomson Reuters search services can help you create suitable search strategies utilizing polymer indexing
- For occasional queries you can also contact our help desk who can help you draw up a search strategy

Enhanced polymer indexing

- Deep indexing system covering all important polymer related information from the patent
  - both generic and specific concepts are indexed
- Indexing contains information not present in the Derwent online abstract
  - generates unique hits compared to text searching, IPC's etc.

Example: DWPI polymer indexing

```
L1   ANSWER 1 OF 1  WPIX COPYRIGHT 2013       THOMSON REUTERS on STN
AN   2010-A01652 [201004]   WPIX
TI   Polishing pad for use in e.g. chemical mechanical planarization
     process has pores in polishing surfaces of polishing elements
     which are affixed to support layer to allow movement only along
     axis normal to polishing surface of elements
DC   A88; P61; U11
IN   JOSEPH W D
PA   (MINN-C) 3M INNOVATIVE PROPERTIES CO
PI   WO 2009158665   A1 20091230 (201004)* EN  39[7]
ADT  WO 2009158665 A1 WO 2009-US48940 20090626
PRAI US 2008-75970P       20080626
PLE  UPA   20100115
     [1.1]     2004 G0828 G0817 D01 D12 D10 D51 D54 D56 D58 D69 D84
               Cl 7A DCN: R01079 DCR: 140524; H0000; H0124-R; S9999
               S1309-R; S9999 S1605-R; P0328; P0340;
     [1.2]     2004 G0102 G0022 D01 D02 D12 D10 D19 D18 D31 D51 D53
               D58 D76 D88 DCN: R00708 DCR: 368; G0828 G0817 D01
               D02 D12 D10 D51 D54 D56 D58 D84 DCN: R00806 DCR:
               129411; H0022 H0011; H0124-R; S9999 S1309-R; S9999
               S1605-R; P0328; P1741; P0351; P0362;
     [1.3]     2004 D01 D02 D03 D12 D10 D51 D53 D59 D85 P0599 H0124
               B5061 DCN: R24073 DCR: 135413; S9999 S1309-R; S9999
               S1605-R;
     [1.4]     2004 P1445-R F81 Si 4A; S9999 S1309-R; S9999 S1605-R;
     [1.5]     2004 ND01; K9416; Q9999 Q6600; K9870 K9847 K9790;
               B9999 B4397 B4240; ND07; K9745-R; B9999 B5221 B4740;
               N9999 N6484-R N6440; K9778 K9745; N9999 N6940 N6939;
               N9999 N6291 N6268; N9999 N6315 N6268; N9999 N6086; . . . .
```

DWPI polymer indexing is searched and displayed using the /PLE field.

Information indexed

- All polymer related information is indexed from:
  - patent claims
  - DWPI documentation abstract
  - claims related example

Structural information indexed

	CODE FORMAT
• Polymer Formers	(Rnnnnn, Gnnnn)
– i.e. monomers and condensants	
• Polymer Types	(Pnnnn)
• Modified Polymers	(Mnnnn)
• Natural Polymers	(Rnnnnn, Gnnnn)
• Chemicals	(Rnnnnn, Gnnnn)
• Modifying Agents	(Rnnnnn, Gnnnn)
• Chemical Aspects	(Dnn, Dnnn, Enn, Fnn, Fnnn)
– i.e. chemical fragment codes	

Non-structural information indexed

	CODE FORMAT
• Novelty Descriptors	(NDnn)
• Universal Terms	(Knnnn)
• Polymer Descriptors	(Hnnnn)
– e.g. thermoplastic, graft copolymer	
• Shape & Form	(Snnnn)
– e.g. fibre, powder, foam	
• Additive Type	(Annn)
• Catalyst Type	(Cnnn)

Non-structural information indexed

	CODE FORMAT
• Chemical Processes	(Lnnnn)
• Physical Operations	(Nnnnn)
• Equipment	(Jnnnn)
• Properties	(Bnnnn)
• Polymer Applications	(Qnnnn)

Not covered

- Starting materials and intermediates for polymer formers and additives
- Chemical processes for catalyst production
- Generic or Markush Modifying Agents
- Starting materials, chemical processes, intermediates, or catalysts for modifying agent production
- Compounds present which are not additives, catalysts or modifying agents for the polymer
  - e.g. a cosmetic containing vitamin E and carboxymethylcellulose

Specific Compound Numbers - SCN

- Common fully defined compounds have their own codes - SCNs
  - code format: Rnnnnn
  - e.g. R24001 - sodium acrylate
- All polymer formers are indexed either by SCNs or generic codes (Gnnnn)
- SCNs used in Polymer Indexing are a subset of those used in Merged Markush Service (MMS)

Hierarchical structure of codes

Polymer Formers

G0022 Monoolefinic

.....

G0260 NT Acrylics monoolefinic

G0271 NT Acrylic acids monoolefinic

'Including Salts thereof'

G0282 NT Acrylic acid + salts

'Monoolefinic only'

R00446 NT Acrylc acid

R24001 NT Sodium acrylate

R24000 NT Potassium acrylate

G0293 NT Acrylic acid salt, other

NT - Narrower Term

Auto-posting

- In addition to the codes chosen by the indexer, the online record contains related codes that are automatically indexed……
- Two types of auto-posting:
  - Up-posting
    - all broader codes further up the hierarchy from the indexed code are automatically indexed
  - Cross-posting
    - related codes from other hierarchies are additionally indexed
- Benefit - easy generic searching

Example: Up-posting of codes

Polymer Formers

G0022 Monoolefinic

……

G0260 **NT Acrylics monoolefinic**
(+ G0022 auto-posted)

G0271 **NT Acrylic acids monoolefinic**
(+ G0022, G0260 auto-posted)

G0282 **NT Acrylic acid/salts**
(+ G0022, G0260, G0271 auto-posted)

R00446 **NT Acrylic acid**
(+ G0022, G0260, G0271, G0282 auto-posted)

R24001 **NT Sodium acrylate**
(+ G0022, G0260, G0271, G0282 auto-posted)

```
PLE  UPA   20110302
     [1.1]     2004 G0282 G0271 G0260 G0022 D01 D12 D10 D26 D51 D53 D58
               D61 D83 F36 F35 Na 1A DCN: R24001 DCR: 135176; H0000; P0088;
```

Example: Cross-posting of codes

R24001 Sodium Acrylate CH2=CHCOONa

All relevant chemical aspect codes are auto-posted:

D01	Organic
D26	Acrylic unsaturated chain (96)
D12	Unsaturated chain
D10	Aliphatic chain
D53	Monoolefinic unsaturation
D51	Unsaturation containing
D58	Terminal olefinic unsaturation
D61	Salt/Complex
D83	Carbon Count
F36	Monocarboxylic acid (salt)
F35	Carboxylic acid (salt)
Na	Sodium
1A	Group 1A

```
PLE  UPA   20110302
     [1.1]     2004 G0282 G0271 G0260 G0022 D01 D12 D10 D26 D51 D53 D58
               D61 D83 F36 F35 Na 1A DCN: R24001 DCR: 135176; H0000; P0088;
```

Linking [1]

- Related codes are indexed together in distinct online sub-fields
- Three different types of sub-field are used, each level of sub-field is searchable with an online proximity operator
  - three 'levels of linking', referred to as level 1, level 2 and level 3
- Related codes can be searched together in the way that they were indexed, maximising accuracy and minimising noise

Linking [2]

- Each separate polymer concept is linked to its associated terms (additives, catalysts, properties, applications etc.) to form a LINKING GROUP
- There may be several linking groups in the online record
- Each linking group is separated from the other linking groups

Linking [3]

- **Example 1** - A patent describing a new bottle made from polyethylene terephthalate and having a cap made from polyolefin e.g. polypropylene or ethylene copolymer.

  This patent has two polymer concepts (bottle and cap) and so would be indexed as two linking groups.

- **Example 2** - A patent for a new tri-layer film, the outermost layer is heat resistant polyamide, the middle layer is aluminium and the inner layer is impermeable PVC.

  Again this patent has two polymer concepts (outer layer and inner layer), so two linking groups would be made.

Linking [4]

- All codes within a linking group are linked together at LEVEL 3
- LEVEL 1 and LEVEL 2 linking are used to indicate *closely related codes* within the linking group
  - e.g. 'graft copolymer' linked to 'acrylonitrile' and 'butadiene'
- To search for codes from different linking groups the AND operator must be used

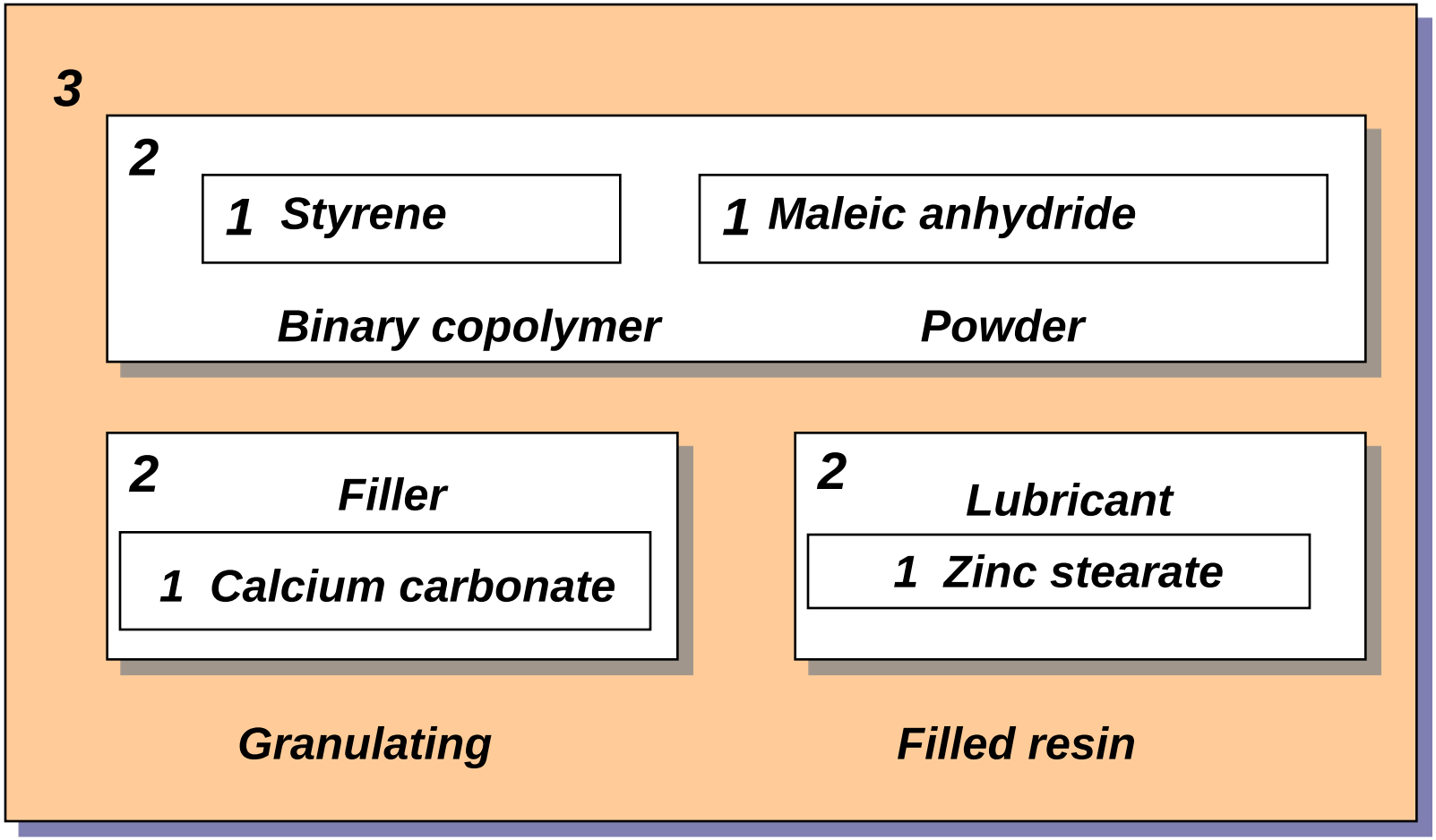
Three levels of linking

- **Level 3** - Widest level - Linking group
  - links related substances
    - e.g. polymer with additive(s)
  - links polymer with properties and applications
- **Level 2** - Middle level - Indexing 'paragraph' for each substance
  - links a compound with its function or shape & form
  - links co-monomers in a copolymer
- **Level 1** - Tightest level - Indexing 'sentence' linking Chemical Aspect codes

Hypothetical Linking group example

- Polymer composition
  - styrene-maleic anhydride binary copolymer
  - calcium carbonate filler
  - zinc stearate lubricant
  - granulation into a powder
- Linking diagram
  - to help visualise the linking levels
- Format for the online record
  - what the indexing looks like online

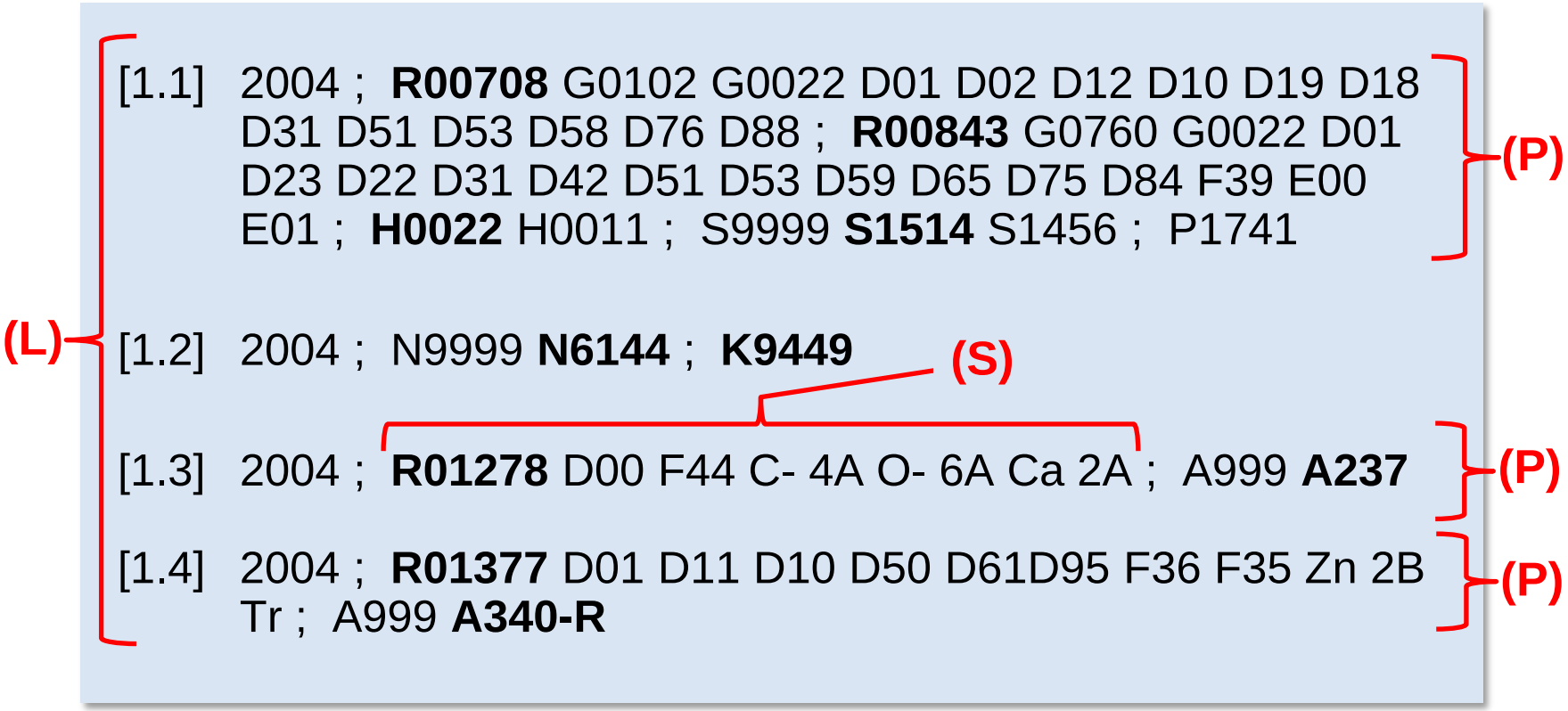
Linking diagram



Three linking operators on STN

Linking level	**Proximity operator**	
(3) (widest)	(L)	Linking Group
(2) (middle)	(P)	Paragraph
(1) (tightest)	(S)	Sentence

The linking group example as it would look indexed in DWPI



The codes shown in **bold** are those which are intellectually indexed. All others are auto-posted codes.

The linking group example as it would look as a search strategy

L1: => S (R00708 (P) R00843 (P) H0022 (P) S1514)/PLE

L2: => S (R01278 (P) A237)/PLE

L3: => S (R01377 (P) A340)/PLE

L4: => S (N6144 (L) K9449)/PLE

L5: => S L1 (L) L2 (L) L3 (L) L4

L1 = polymer; L2 = filler; L3 = lubricant; L4 = granulating + filled resin.

Linking level table

- Example – Polymer Type codes link to Additive codes at level 3

FACET	Polymer Type Pnnnn	Polymer Rnnnnn	Former Gnnnn	Additive Annn	Catalyst Cnnn	Modifying Agent
Polymer Descriptor						
Hnnnn	2	2	2	3†	3†	3†
H0146	2	1	1	N/A	N/A	N/A
H0215	2	1	1	N/A	N/A	N/A
H0204	2	N/A	1	N/A	N/A	N/A
Polymer Former						
Rnnnnn/Gnnnn	2	2	2	3†	3†	3†
Polymer Type						
Pnnnn	AND#	2	2	**3†**	3†	3†
Natural Polymer						
Rnnnnn/Gnnnn	2	2	2	3†	3†	3†

Note: The full table showing linking levels for combining codes can be found in Appendix 2 (page 59) of the Polymer Indexing System Description.

Polymer Indexing display formats

PLE	All enhanced polymer indexing
HITPLE	Hit polymer indexing paragraphs
CODE (IND)	All patent classifications, Manual Codes, DCR indexing, chemical and polymer subscriber indexing
HITCODE	Hit classification codes, and hit subscriber indexing paragraphs

Example: HITPLE display

```
=> S (R00708(P)R00806(P)H0022)/PLE
L1       28211 (R00708(P)R00806(P)H0022)/PLE

=> D BIB HITPLE

L1   ANSWER … OF 28211  WPIX COPYRIGHT 2013       THOMSON REUTERS on STN
AN   2011-B76997 [201115]   WPIX
TI   Gel material for optical apparatus, contains transparent gel, and has
     specified hardness, penetration and repulsive force when surrounding
     surface of string-form gel material is contacted with light guide
     plate and light emitting element
DC   A89; L03; P81; Q71; U14; V07; X26
IN   MASUDA MASAHIKO; SAKURAI HIROHISA; SASAZAWA TAKAHIRO; SHIRATORI YUICHI
PA   (TAIC-N) TAICA CORP
PI   WO 2011019050   A1 20110217 (201115)* JA  98[41]
ADT  WO 2011019050 A1 WO 2010-JP63616 20100811
PRAI JP 2010-104807       20100430
     JP 2009-187696       20090813
PLE  UPA   20110302
     [2.3]     2004 G0102 G0022 D01 D02 D12 D10 D19 D18 D31 D51 D53
               D58 D76 D88 DCN: R00708 DCR: 368; G0828 G0817 D01
               D02 D12 D10 D51 D54 D56 D58 D84 DCN: R00806 DCR:
               129411; H0022 H0011; S9999 S1365; P0328; P1741; P0351;
```

R00708 = Styrene
R00806 = Butadiene
H0022 = Binary copolymer

Searching for polymers

- Polymer formers
- Polymer types
- Modified polymers
- Natural polymers
- Chemical aspects

Addition polymers

- Addition polymers have monomer-based indexing
  - e.g. Polymethylmethacrylate:

    methylmethacrylate + *homopolymer*

    => S (R00479 (P) H0000)/PLE
  - e.g. Ethylene-propylene binary copolymer:

    ethylene + *propylene* + *binary copolymer*

    => S (R00326 (P) R00964 (P) H0022)/PLE
- Common addition polymers are also searchable as a single cross-posted polymer type code, e.g.
  - polymethylmethacrylate: => S P0113/PLE
  - ethylene-propylene binary copolymer: => S P1285/PLE

Addition polymers (cont.)

```
=> FILE WPIX

=> S (R00479 (P) H0000)/PLE
L1        30277 (R00479 (P) H0000)/PLE

=> S (R00326 (P) R00964 (P) H0022)/PLE
L2        18433 (R00326 (P) R00964 (P) H0022)/PLE

=> S P0113/PLE
L3        30277 P0113/PLE

=> S P1285/PLE
L4        18433 P1285/PLE
```

Search monomer indexing:

R00708 = Methylmethacrylate
R00326 = Ethylene
R00964 = Propylene
H0000 = Homopolymer
H0022 = Binary copolymer

Search Polymer Types:

P0113 = Polymethylmethacrylate
P1285 = ethylene-propylene binary copolymer

Condensation polymers

- Monomers/condensants are typically only indexed when stated in the patent
  - e.g. Polyethylene terephthalate (PET) from ethylene glycol and terephthalic acid:

    PET + ethylene glycol + terephthalic acid + binary copolymer

    => S (P0884(P)R00822(P)R00702(P)H0022)/PLE

  - PET with no further monomer/condensant details is indexed as *PET* only: => S P0884/PLE

    I.e. for all references to PET, just search P0884

Condensation polymers (cont.)

```
=> FILE WPIX

=> S (P0884(P)R00822(P)R00702(P)H0022)/PLE
          74639 P0884/PLE
          17040 R00822/PLE
          13450 R00702/PLE
         262106 H0022/PLE
L1         1996 (P0884(P)R00822(P)R00702(P)H0022)/PLE

=> S P0884/PLE
L2         74639 P0884/PLE
```

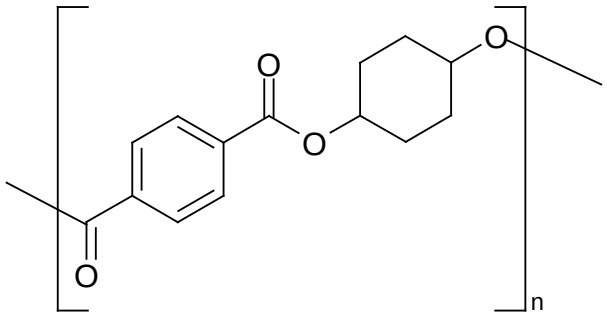
R00822 = Ethylene glycol
R00702 = Terephthalic acid
H0022 = Binary copolymer

P0884 = Polyethylene terephthalate (PET)

I.e. for all references to PET, just search P0884 (L2).

Condensation polymers (cont.)

- When no polymer formers are stated, polymers are often indexed by structural repeat unit (SRU)
  - e.g.



Indexed as:

(P1978-R (2) D01 (2) D14 (2) D19 (2) D32 (2) D76 (2) D50 (2) D93 (2) E21 (2) F90)

i.e. polyester polymer type code + chemical aspects for the repeat unit

Each chemical aspect is indexed at Level (2) to the polymer type code.

Condensation polymers (cont.)

```
=> FILE WPIX

=> S (P1978-R (P) (D01 (S) D14 (S) D19 (S) D32 (S) D76 (S)
      D50 (S) D93 (S) E21 (S) F90))/PLE
L3          81 (P1978-R (P) (D01 (S) D14 (S) D19 (S) D32
               (S) D76 (S) D50 (S) D93 (S) "E21" (S) F90))/PLE

=> D HITPLE

L3   ANSWER … OF 81  WPIX COPYRIGHT 2013 THOMSON REUTERS on STN
PLE  UPA   20070402
[2.1]  2004 E21 E00 D01 D11 D10 D19 D18 D14 D13 D32 D76 D50 D93
       D90 F90 F41 D31; S9999 S1581; H0293; P1978-R  P0839 D01
       D50 D63 F41;
```

SRU search (L3) – see previous slide.

Note: Each chemical aspect code is searched using (P) to the polymer type.

Condensation polymers (cont.)

- If polymer formers are stated, these are indexed
  - e.g. if the polymer from the previous slide is prepared from terephthalic acid and 1,4-cyclohexane diol

Indexed as:

(P1978 (2) R00702 (2) (G1069 (1) D01 (1) D14 (1) D31 (1) D76 (1) D50 (1) D86 (1) F28) (2) H0022)

i.e. polyester polymer type + terephthalic acid + (other diol + chemical aspects for cyclohexane diol) + binary copolymer

- For complete retrieval, search both SRU and monomer based indexing

Searching for additives

- Additives can be searched
  - by chemical composition
  - by function

Triethylphosphate heat stabiliser

=> S (R00424(P)A511)/PLE

```
PLE  UPA   20100806
     [1.5]     2004 G3327 D01 D11 D10 D50 D63 D86 F53 DCN: R00424
               DCR: 514; A999 A511 A486;
```

Searching for catalysts

- Catalysts can be searched:
  - by chemical composition
  - by type
  - by function

Potassium persulphate free radical initiator

=> S (R01737(P)C088)/PLE

```
PLE  UPA   20130813
     [1.4]     2004 D00 F48 F60 K- 1A O- 6A S- DCN: R01737 DCR:
               448; C999 C293; C999 C088-R C000;
```

Building search strategies

- Create separate search statements for each component
  - for polymeric components
  - for non-polymeric components
- Combine the statements together with the appropriate proximity operators

Building strategies (cont.)

Emulsion copolymerisation of a vinyl halide and an alpha-olefin using sulphonate dispersant

Polymer:

L1 => S (G0544 (P) G0033 (P) H0022 (P) L2551) /PLE

Additive:

L2 => S (A624 (P) F62) /PLE

Combine together:

L3 => S L1 (L) L2

```
PLE  UPA   20050831
     [1.7]     018 H0022 H0011; G0544 G0022 D01 D12 D10 D51 D53 D58 D69 D82
               Cl 7A DCN: R00338 DCR: 621; G0033-R G0022 D01 D02 D51 D53;
               L9999 L2551 L2506; L9999 L2675 L2506; S9999 S1025 S1014; S9999
               S1058 S1014; L9999 L2528 L2506; P1150; P1796;
     [1.13]    018 D01 D11 D10 D50 D60 D61-R F16 F35-R F62 F60 1A-R 2A-R;
               A999 A635 A624 A566; K9632 K9621;
```

Searching using “-R” [1]

- Codes that have narrow terms can either be auto-posted or manually indexed
  - these are codes at the top of a hierarchy
- When manually indexed, a “-R” suffix is added to these codes
- When auto-posted, no “-R” is added
- Searching for codes with a -R suffix will retrieve answers where the code has been manually indexed
  - auto-posted codes are not retrieved
  - the number of hits is reduced
- The Polymer Indexing Dictionary labels entries with -R as (general) and entries without -R as (all references)

Searching using “-R” [2]

Polymer Applications hierarchy

Q7603	**Friction materials**
Q7614	NT Brakes
Q7625	NT Clutches
Q7636	**Fuels**

S Q7603/PLE

– retrieves all references to friction materials, (both manually indexed and auto-posted) including all brakes and clutches

S Q7603-R/PLE

– retrieves only manually indexed references to generic and other friction materials, *excluding* brakes and clutches

Dummy codes

- Autogenerated to indicate that a code from a certain hierarchy is present

A999	Additive
B9999	Properties
C999	Catalyst
J9999	Equipment
L9999	Chemical Processes
M9999	Modified Polymers
N9999	Physical Operations
Q9999	Applications
S9999	Shape & Form

- Note that there are no Dummy Codes for polymers
- Dummy codes provide an alternative to truncation, e.g.

  => S A999/PLE is equivalent to => S A?/PLE

Modified polymers & modifying agents

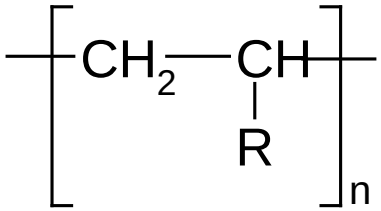
- Modified polymers are indexed as the original un-modified polymer plus codes to index the modification
  - all linked at level (2)
- For modifying agents to be indexed they must be specifically referred to in the patent
- Most records online containing modified polymer indexing will therefore not include modifying agents
- To search for a modifying agent
  - link the chemical SCN or chemical aspects with modifying agent code (H0226) at level 2

Modifying agents & modified polymers

- To search for modified polymers
  - link the polymer with modified polymer codes (Mnnnn) at level 2
- To link a modified polymer to a specific modifying agent
  - the modifying agent is indexed in a separate paragraph to the modified polymer, so
    - search for the modified polymer
    - search for the modifying agent SCN linked at level 2 to the modifying agent code (H0226)
    - link the two search statements together at level 3

Generic / Markush polymer formers

- A group of polymer formers is often described using a **Markush diagram**
  - e.g.



R = H, Me, Et, nPr

- Alternatively a **generic phrase** is used to describe the group of polymer formers
  - e.g. 2-5C aliphatic monoolefin
- However SCNs are only indexed when the polymer former is <u>specifically</u> mentioned

Generic / Markush polymer formers

- To retrieve Markush or generic references to a specific polymer former
  - search with an appropriate generic polymer former code
  - link the generic code at LEVEL 1 to chemical aspects for the specific polymer former

Generic / Markush polymer formers

All propylene polymers prepared using vanadium metallocene catalysts

L1	=> S ((**G0033 (S) D83**) (P) (H0000 OR H0011))/PLE
L2	=> S (C293 (P) (D62 (S) V))/PLE
L3	=> S L1 (L) L2

G0033	(Cyclo)aliphatic monoolefinic hydrocarbons
D83	Carbon count of 3
H0000	Homopolymer
H0011	Copolymer - all references
C293	Catalyst for polymerisation through C-C unsaturation
D62	Metallocene
V	Vanadium

Manuals & user aids

- Available in print or as pdf download from: http://ip-science.thomsonreuters.com/support/patents/userguides/polymerguides/
  - *Polymer Indexing System Description*
  - *Polymer Indexing Hierarchy*
  - *Polymer Indexing Reference Manual*
  - *Polymer Indexing Dictionary*
  - *Polymer Indexing Thesaurus*
- PILOT v3.0 & User Guide
  - **P**olymer **I**ndexing **L**anguage **O**nline **T**ranslation
  - software to help construct a strategy for the Enhanced Polymer Indexing codes, and automatically create the corresponding strategy for Plasdoc codes

Polymer Indexing Hierarchy [1]

- Concepts grouped by hierarchy
- Codes for all the primary terms
- Narrower Terms or sub-divisions (NT)
- Used For terms (UF) to indicate synonyms
- See Also terms (SA) for other related concepts
- Scope notes “...“ to explain the use and limitation of the term

Polymer Indexing Hierarchy [2]

Physical Operations

N6611 Process control

N6622 NT Automation

UF Computer control

N6633 NT Temperature control

SA pH control

N6644 Purging

UF Flushing

Polymer Indexing Thesaurus [1]

- Alphabetical listing of concepts
- All main concepts with hierarchies
- Secondary concepts (synonyms)
- Codes for both main and secondary concepts
- All relationships listed under the concepts
- Only the next level of Narrower or Broader Terms shown

Polymer Indexing Thesaurus [2]

A113 **Compatibility improver** [*additives*]

K9756 **Compatible polymer blend** [*universal terms*]

NT Interpenetrating network

BT Polymer blend

A124 **Complexing agent** [*additives*]

UF Chelating agent

UF Sequestering agent

{Compliance} [*properties*]

USE Rigidity properties B3930

Polymer Indexing Dictionary [1]

- Alphabetical listing of concepts and the corresponding
  - Polymer Indexing codes (PI 1993 - date)
    Plasdoc Derwent Registry Numbers (1984 - 1994)
    Plasdoc Key Serial codes (KS 1978 - 1994)
    Plasdoc Punch codes (AM 1966 - 1994)
- Each entry shows the line number for the code on the standard search strategy

Polymer Indexing Dictionary [2]

POLYVINYL CHLORIDE *[polymer types]* **P1809**

BT Vinyl chloride polymers

UF PVC

SA Vinyl chloride

061 (L) 063 (L) 688 [1]

0759 [5]

P1809 [8]

Note: line [1] shows a generic link operator (L) – on STN use (P)

Polymer Indexing Reference Manual

- Polymer Indexing Code list
  - alphanumeric order
  - including all autoposted terms
- Polymer Indexing Molecular formula list
  - molecular formulae for all SCNs with known structure
- Polymer Indexing Chemical Aspects - graphical definitions
  - graphical representation of certain chemical aspects

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