METADEX®

FILE DESCRIPTION

The **METADEX** database, produced by CSA, provides comprehensive coverage on metals and alloys, and their properties, fabrication, applications, and development. The database corresponds to the printed publications: *Metals Abstracts, Metals Abstracts Index*, and *Alloys Index*.

SUBJECT COVERAGE

- Phase diagrams
- Microstructure
- Metallography
- Testing and analysis
- Mechanical, physical, electrical, and magnetic properties
- Corrosion
- Mining, extraction, and refining
- Casting
- Working and forming
- Machining
- Welding
- Powder metallurgy
- Heat treatment, finishing, and coating
- Composite materials

SOURCES

Literature indexed includes journal articles, conference papers, technical reports, books, monographs, standards, news briefs, and other document types as appropriate, from more than 3,000 serial and non-serial sources.

TIPS

USE FILE 32
to search international metals literature.

USE /TI AND /DE
for very precise title and descriptor searching:

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S BARIUM BASE ALLOYS/TI,DE
```

USE SUBJECT HEADINGS or SUBJECT HEADING CODES
to narrow a search to a topic.

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S SH=IRRADIATION EFFECTS
S SC=16
```

USE RANK
to find experts working in an area of interest.

```
S MARTENSITIC(W)TRANSFORMATION
RANK AU
```

USE LIMITS
to focus results:

```
/ABS (record has an Abstract)
/YYYY (Limit to the most recent records)
```

DIALOG FILE DATA

Inclusive Dates: 1966 to the present
Update Frequency:
Monthly (Approx. 3,500 records per update)
File Size:
More than 1.4 million records as of June 2005

CONTACT

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SAMPLE RECORD

DIALOG(R)File 32:Metadex

0001425584 IP ACCESSION NO: 200504-51-12022 /TI _Zinc alloy castings prototyping
AU= Pola, Annalisa; Viscardi, Cristian
CS= Universita degli Studi di Brescia
JN=,SO=,PD= Diecasting & Technology, n 31, p 32-34, Sept. 2004
PY= PUBLICATION DATE: 2004

PU= PUBLISHER: Edimet spa, Via Corfy, 102, Brescia, 25124
CP= COUNTRY OF PUBLICATION: Italy
PUBLISHER URL: http://www.gsnet.it/edimet/
PUBLISHER EMAIL: edimet.spa@mail.gsnet.it
DT= DOCUMENT TYPE: Journal Article
RT= RECORD TYPE: Abstract
LA= LANGUAGE: English and Italian
SN= ISSN: 1126-1498
NOTES: Numerical Data; Photomicrographs
FS= FILE SEGMENT: Metadex

ABSTRACT:
/AB The production of diecast components involves a long die development and cycle optimisation phase in order to ensure that the cavity is correctly and completely filled and to obtain a casting with mechanical and metallurgical properties which are suitable for its operating conditions. During sampling, the necessary analyses for characterising the component are usually carried out, making any changes to the geometry and/or thermoregulation of the die if they prove to be unsatisfactory. Therefore, a similar procedure makes it possible to evaluate the validity of the product only a posteriori, with high costs and preparation times. Verification of the performance of the component can be effected by using prototyping which, while it allows the faithful reproduction of the piece's geometry, does not always fit in with the technological processes which involve the solidification of the metal, thus resulting in mechanical properties which are different from those of a diecasting. It is therefore preferable to use other simpler and more economical casting meth-ods. For this purpose, in collaboration with Umicore Zinc Alloys & Chemicals, a new study is under way at the Metallurgy group of the Mechanical Engineering Department of the University of Brescia, aimed at defining the correlation between the properties of a diecasting in zinc alloy and the corresponding lost wax casting characterised by fast set-up times and limited costs.

/DE DESCRIPTORS: Costs; Die casting; Investment casting; Metallurgical analysis ; Process metallurgy; Prototyping; Solidification; Thermoregulation; Zinc alloys
SC=,/SH,SH= SUBJ CATG: 51, Foundry

SEARCH OPTIONS

BASIC INDEX

SEARCH SUFFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
—	—	All Basic Index Fields	Word	S ALLOY(W)DEVELOPMENT
/AB	AB	Abstract	Word	S DIECAST(W)COMPONENT?/AB
/DE	DE	Descriptor[2]	Word & Phrase	S DIE(W)CASTING/DE S PROCESS METALLURGY/DE
/ID	ID	Identifier	Word & Phrase	S THIN(W)FILMS/ID S DEPTH PROFILES/ID
/SH	SH	Subject Category Text[1]	Word	S FOUNDRY/SH
/TI	TI	Title	Word	S ZINC(W)ALLOY?/TI

[1] Searchable in the Basic Index and in the Additional Indexes.

[2] Also /DF.

ADDITIONAL INDEXES

SEARCH PREFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
AA=	AA	CSA Accession Number	Phrase	S AA=200504-51-12022
AU=	AU	Author	Phrase	S AU=POLA, A?
—	AZ	DIALOG Accession Number		
BN=	BN	International Standard Book Number	Phrase	S BN=0-8194-5260-2
CD=	CD	Conference Date	Word	S CD=20040906
CL=	CL	Conference Location	Phrase	S CL=NEW YORK
CP=	CP	Country of Publication	Phrase	S CP=ITALY
CS=	CS	Corporate Source	Word & Phrase	S CS=(UNIVERSITA(1W)STUDI?) S CS=UNIVERSITA DEGLI STUDI?
CT=	CT	Conference Title	Word	S CT=(HSLA(W)STEELS)
CY=	CY	Conference Year	Phrase	S CY=2004
DT=	DT	Document Type	Phrase	S DT=JOURNAL ARTICLE
FS=	FS	File Segment	Phrase	S FS=METADEX
II=	II	Digital Object Identifier		
JN=	JN	Journal Name	Phrase	S JN="DIECASTING & TECHNOLOGY"
LA=	LA	Language	Phrase	S LA=SERBO-CROATIAN
MC=	MC	Materials Classification	Phrase	S MC=AG, BRASSES
ML=	ML	Materials	Phrase	S ML=BA11
NO=	NO	Document Number	Phrase	S NO=1232
—	NR	Number of References		
—	NT	Note		
PD=	PD	Publication Date	Phrase	S PD=20040900
PU=	PU	Publisher	Word	S PU=(EDIMET(W)SPA)
PY=	PY	Publication Year	Phrase	S PY=2004
RN=	RN	Report Number	Phrase	S RN=DE90-623499
RT=	RT	Record Type	Phrase	S RT=ABSTRACT
SC=	SC	Subject Category	Phrase	S SC=51
SH=	SH	Subject Category Text[1]	Phrase	S SH=FOUNDRY
SN=	SN	International Standard Serial Number	Phrase	S SN=1126-1498
SO=	SO	Source Information	Word	S SO=DIECASTING?
UD=	—	Update	Phrase	S UD=9999

METADEX®

SPECIAL FEATURES

For command descriptions, enter HELP LIMIT, HELP SORT, HELP RANK, HELP DUP, HELP CURRENT online.

LIMIT	/**ABS** -- Record has an Abstract /**NOABS** -- Record does not have an Abstract /**YYYY** -- Publication Year	S S1/ABS S S4/NOABS S S3/2004
SORT	**AA, AU, CS, JN, PD, PY, TI**	SORT S4/ALL/JN SORT S2/ALL/PY/D
RANK	All phrase- and numeric-indexed fields in the Additional Indexes can be ranked.	RANK DE RANK AU S4
RD, ID	Remove duplicates (RD) or identify duplicates (ID,IDO).	RD S5
CURRENT	Search only the most recent year plus one (CURRENT1) to five (CURRENT5) years.	B 32 CURRENT2

PREDEFINED FORMAT OPTIONS

NO.	DIALOGWEB FORMAT	RECORD CONTENT
1	--	DIALOG Accession Number
2	--	Full Record except Abstract
3	--	Bibliographic Citation
4	--	Full Record with Tagged Fields
5	--	Full Record
6	Short	Title and Publication Year
7	Long	Bibliographic Citation and Abstract
8	Free	Title, Indexing, and Publication Year
9	Full	Full Record

OTHER OUTPUT OPTIONS

For an explanation, enter HELP TYPE, HELP UDF, HELP TAG online.

USER DEFINED FORMATS	Display codes listed in the Search Options tables can be used to customize output.	TYPE S3/AU,TI/1-10 PRINT S2/AU,TI,AB/ALL
TAG	Output can be displayed with tags identifying each display field.	TYPE S3/TI,SO/1-5 TAG PRINT S2/9/ALL TAG
DIRECT RECORD ACCESS	If the accession number of a specific record is known, it can be used to display the record directly.	TYPE 0923344/5 DISPLAY 0917448/AU,TI PRINT 0907883/9

FOR ONLINE HELP:

See HELP FIELDS 32 for searchable fields; HELP FORMAT 32 for output formats; HELP LIMIT 32 for limits; HELP RATES 32 for cost information; HELP SORT 32 for sorts.