

**HANDBOOK OF
PAINT RAW MATERIALS**

Second Edition

HANDBOOK OF PAINT RAW MATERIALS

Second Edition

by

Ernest W. Flick



NOYES PUBLICATIONS

Park Ridge, New Jersey, U.S.A.

Copyright © 1989 by Ernest W. Flick

No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without permission in writing from the Publisher.

Library of Congress Catalog Card Number: 89-30275

ISBN: 0-8155-1184-1

Printed in the United States

Published in the United States of America by

Noyes Publications

Mill Road, Park Ridge, New Jersey 07656

10987654321

Library of Congress Cataloging-in-Publication Data

Flick, Ernest W.

Handbook of paint raw materials / by Ernest W. Flick. -- 2nd ed.

p. cm.

Includes index.

ISBN 0-8155-1184-1 :

1. Paint materials--Handbooks, manuals, etc. I. Title.

TP935.F617

1989

667'.6--dc19

89-30275

CIP

Preface

This handbook contains descriptions of nearly 4,000 raw materials which are currently available to the paint industry. It will be of value to technical and managerial personnel in paint manufacturing companies and companies which supply raw materials or services to these companies. This book will be useful to both those with extensive experience as well as those new in the field.

The data included represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of the materials. Only the most recent information has been included. Lead-based chemicals and color pigments are excluded. It is believed that all of the products listed here are currently available, which will be of utmost interest to readers concerned with product discontinuances.

The raw materials have been divided into the following 13 sections:

1. Antifoams, Defoamers, Dispersants, Surfactants (258)
2. Driers and Antiskinning Agents (194)
3. Extenders, Fillers, Pigments (420)
4. Flame/Fire Retardants (33)
5. Flatting Agents (28)
6. Latex Emulsions (102)
7. Oils (92)
8. Preservatives, Bactericides, Fungicides (80)
9. Resins (2,064)
10. Rheological/Viscosity Control Agents (125)
11. Silicone Additives (51)
12. Titanium Dioxides (33)
13. Miscellaneous (469)

The numbers in parentheses indicate the number of products to be found in each section. When searching for a particular type of product, the reader is advised to consult each section which might be pertinent.

In addition to the sections listed above, a list of Suppliers' Addresses and a Trade Name Index are included.

The table of contents is organized in such a way as to serve as a subject index to the book. Companies are presented alphabetically in each section and appropriate products are listed for each company. The book lists the following product information, as available, in the manufacturer's own words:

- (1) Company name and product category.
- (2) Trade name and product numbers.
- (3) Product description: a description of the product, its properties, and possible applications, as presented by the supplier.

My fullest appreciation is expressed to the companies and organizations who supplied the data included in this book.

Newburyport, Massachusetts
April 1989

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This industrial guide does not purport to contain detailed user instructions, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

In certain cases, paint raw materials could be toxic, and therefore due caution should always be exercised in the use of any potentially hazardous materials. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

Contents

SECTION 1 ANTIFOAMS, DEFOAMERS, DISPERSANTS, SURFACTANTS

Allied Colloids	2
DISPEX Dispersing Agents	2
Colloids, Inc.	3
Additives for Paints and Adhesives	3
Defoamers	3
COLLOID	
Dry Defoamers	7
Dispersants	7
Wetting Agent	9
Thickener	9
Daniel Products Co.	10
DAPRO Foam Suppressors	10
DAPRO Silicone-Free Foam Suppressors	10
DISPERSE-AYD	12
Dayco Color Corp.	14
NALCO Antifoams	14
NALCO Antifoams/Dispersants	16
NALCO Coatings Additives	17
Colloidal Silicas, Coagulants and Flocculants	
Drew Industrial Division	18
DREWFAX Specialty Surfactants	18
DREWGARD	
DREWPLUS Foam Control Agents	20
DuPont Co.	25
ELVACITE AB Dispersants	25
Surfactants	26
MERPOL, ZONYL	

Exxon Chemicals.	27
TPM-662	27
Genesee Polymers Corp.	28
Antifoams	28
W.R. Grace & Co.	32
DAXAD High Activity Dispersants	32
Polymethacrylates. Polyisobutylene-Maleic Anhydride Copolymer, Cationic Polyelectrolyte	
Henkel Corp.	34
Additives	34
DYSOL MS-40, FOAMASTER DS, MODICOL S, NOPCO COLOR- SPERSE, NOPCOSPERSE	
Hercules Inc.	38
HERCULES AR150 and AR160 Surfactants	38
Hi-Tek Polymers, Inc.	39
PHOSFAC 5513 Pigment Dispersant	39
Interstab Chemicals	40
Anti-Foaming Agents-Defoamers	40
ANTI-FOAMING AGENT, HEVI-DUTY ANTI-FOAMING AGENT, INTERFOAM X-1	
Wetting Agents and Dispersants	43
INTERSPERSE, INTERWET	
C.J. Patterson Co.	44
PATCO Designed Chemicals	44
PATCOTE	
Rohm and Haas.	47
TAMOL Dispersants	47
TRITON Wetting Agents	48
Ross Chem, Inc.	50
Defoamers for Paints and Coatings	50
FOAM BURST	
Tego Chemie Service USA	52
Defoamers	52
TEGO FOAMEX	
Tri-Star Chemical Co.	55
TRI-STAR Antifoam 27	55
Troy Chemical Corp.	56
Defoamers	56
TROYSOL, TROYKYD	
Dispersants/Surfactants	60
TROYSOL	
Ultra Adhesives, Inc.	66
Antifoams/Defoamers	66
DEE FO, FOAMTROL	
Products	71
ULASPERSE, ZINPLEX	
R.T. Vanderbilt Co., Inc.	72
Paint/Pater Products	72
DARVAN, RHEOTOL	

SECTION 2 DRIERS AND ANTISKINNING AGENTS

Cosan Chemical Co.	74
COATE Driers	74
Daniel Products Co.	75
DAPRO DP 5005	75
Interstab Chemicals	76
Drier Catalysts	76
ZIRCO, Rare Earth, INTERDRY	
Driers	77
Naphthenate Driers	77
Hexogen Octoate Driers	77
INTERSTAB	
NOURY-DRY	77
Tallates	77
INTERCAR	77
P.I. Driers	77
Mooney Chemicals, Inc.	79
MOONEY CEM-ALL Driers (Synthetics)	79
MOONEY HEX-CEM Driers (Octoates)	81
MOONEY HYDRO-CURE and HYDRO-CEM Water-Dispersible Driers	82
DRI-RX	
MOONEY LIN-ALL Driers (Tallates)	83
MOONEY NAP-ALL Driers (Naphthenates)	84
NEO-NAP	
MOONEY TEN-CEM Driers (Neodecanoates)	85
Troy Chemical Corp.	86
Driers and Anti-Skinning Agents	86
TROYKYD PERMA DRY	86
TROYMAX Driers	87
TROYKYD W.D. Driers (Water Dispersible)	88
TROYKYD Driers (Naphthenate)	89
TROYCHEM Driers (Octoate)	90
TROYKYD Anti-Skinning Agents	91
ANTI-SKIN	
R.T. Vanderbilt Co., Inc.	93
Paint/Paper Products	93
ACTIV-8	

SECTION 3 EXTENDERS, FILLERS, PIGMENTS

Agrashell, Inc.	96
Vegetable Shell Products	96
Industrial Flour, TEXSHEL	
American Colloid Co.	98
Clays	98
HECTABRITE, MAGNABRITE, VOLCLAY	

Burgess Pigment Co.	99
Aluminum Silicates	99
OPTIWHITE, TISYN, ICECAP, ICEBERG, THERMO GLACE	
R.E. Carroll, Inc.	102
Fillers	102
DOVER, SWANEE, YORK WHITE	
White Pigment Corp.: VERFLAKE/VERWHITE	103
Cyprus Industrial Minerals Co.	104
Extenders and Fillers	104
BEAVERWHITE, MISTRON MIST, MISTRON MONOMIX, MISTRON ULTRAMIX, MISTRON VAPOR	
DuPont Co.	107
PULPLUS Polyethylene	107
ECC America Inc.	108
Calcium Carbonate	108
ULTRAMITE/MICRO-WHITE, SUPERMITE/MICRO-WHITE, OPACIMITE, MACROMITE/MICRO-WHITE, ATOMITE/MICRO- WHITE, SNOWFLAKE WHITE/MICRO-WHITE, SNOWFLAKE PE, DRIKALITE/MICRO-WHITE, DURAMITE, MICRO-WHITE, MARBLE DUST, SUPERCOAT (Surface Treated), KOTAMITE/ MICRO-WHITE, OPACICOAT	
Engelhard Corp.	111
Aluminum Silicate Pigments	111
Hydrous	111
Hydrous Delaminated	112
SATINTONE Aluminum Silicates	113
SPECIAL, PLUS	
Evans Clay Co.	114
Kaolin Clays and Extenders	114
APEX, SNOBRITE *	
Franklin Limestone Co.	115
PEERLESS High Calcium Limestone "T" Products	115
FRANKLIN	
Franklin Mineral Products	116
Water Ground Mica	116
Genstar Stone Products Co.	117
CAMEL-CAL/CAMEL-CAL ST/CAMEL-CAL Slurry	117
CAMEL-CARB/CAMEL-TEX	118
CAMEL-FIL	119
CAMEL-WITE/CAMEL-WITE ST/CAMEL-WITE Slurry	120
Georgia Kaolin Co., Inc.	121
Calcined Extender Pigments	121
GLOMAX, ALTOWHITE	
Delaminated KAOPAQUE Aluminum Silicates	124
HYDRITE Kaolinites	125
Georgia Marble Co.	128
Calcium Carbonate Fillers	128
Regular Coarse and Medium Ground Products	128

No Color Specified, Color Controlled, Screen Controlled Products	
General Use Fillers	129
GAMA-SPERSE, GAMACO, WINGDALE WHITE, CALWHITE	
Fillers Tailored for Plastics	130
GAMA-PLAS	
Stearate Surface Modified Fillers	131
Ultra Fine Products	131
GAMA-FIL	
Grefco, Inc.	132
DIATOMITE Functional Fillers	132
Natural DIATOMITE Functional Fillers, Processed DIATOMITE Functional Fillers	
DICALITE Fillers and Extenders	134
DICAPERL Hollow Glass Microspheres	135
PEPLITE Functional Fillers	136
SOLKA-FLOC Functional Fillers	137
Hill Brothers Chemical Co.	139
HI-FIBE	139
J.M. Huber Corp.	141
Synthetic Silica Products	141
ZEOTHIX, ZEOSYL, HUBERSIL, ZEOFREE, ZEOMATT, ZEO, ZEODENT, HUBERSORB, ZEOLEX, HYDREX, HUBERFIL	
Illinois Minerals Co.	144
Microcrystalline Silica	144
Micronized, Air Floated	
Malvern Minerals Co.	147
Microcrystalline Arkansas Novaculite	147
DAPER NOVACITE, NOVACITE, EBONY NOVACITE	
Manville	151
CELITE Functional Fillers for the Coatings Industry	151
CELITE, WHITE MIST, SUPER FINE, SUPER FLOSS	
MICRO-CEL	154
The Milwhite Co., Inc.	155
MICROBARITE	155
Nyco	156
ATH Base Grades for ATH NYCOAT Surface Modified Product	156
Developmental Products	158
NYGLAS Surface Modified Crushed Glass	158
NYAD Wollastonite	159
NYAD G Wollastonite High Aspect Ratio Grade	159
NYAD FP Wollastonite Coarse Grade	160
400 Mesh Wollastonite Base Grade for WOLLASTOKUP	160
NYAD 1250 Wollastonite Fine Particle Size Grade	160
NYAD 475 Wollastonite Fine Particle Size Grade	161
NYFLAKE Muscovite Mica	161
MICACOAT	
NYSPHERES Hollow Glass Microspheres	161

NYCOR Barytes/Celestite	162
Ohio Lime Co.	164
Pulverized Dolomitic Limestone	164
STONELITE, OHSO	
Pfizer Minerals, Pigments & Metals Division	165
MICROTALC—High Purity Montana Talcs	165
TALCRON—High Purity Montana Talc	166
ULTRAFINE Precipitated Calcium Carbonates	167
MULTIFEX, ULTRA-PFLEX	
VICRON Ground Limestone (Eastern)	169
Silbrico Corp.	170
RYOLEX Industrial Perlites	170
SIL-CELL Microcellular Filler	171
SIL	
Smith Chemical & Color Co., Inc.	172
Products Distributed	172
CALWHITE, MICROFINE BARIUM SULFATE, SNOW*TEX, SUPERFINE BESTONE TALC	
Tammco, Inc.	175
GRANUSIL Industrial Sand: Ottawa, MN	175
NEOSIL A	176
NEOSIL XV	177
NEOSIL 7	178
SILVER BOND B	179
SILVER BOND 30	180
SILVER BOND 45	181
S MICRON	182
SNOW WHITE 325 Mica/Spruce Pine, North Carolina	183
Thiele Kaolin Co.	184
Clays	184
THIELE, KAOPLATE (Delaminated)	
Thompson, Weinman & Co.	186
Calcium Carbonate—Barytes	186
SUPERMITE, SUPERCOAT, ATOMITE, KOTAMITE, SNOWFLAKE WHITE, SNOWFLAKE P.E., DRIKALITE, DURAMITE, MARBLE- MITE, BARIMITE	
U.S. Silica	189
MIN-U-SIL Ground Silica	189
SIL-CO-SIL Ground Silica	191
SNOW*TEX Anhydrous Aluminum Silicate	196
R.T. Vanderbilt Co., Inc.	197
Paint/Paper Products	197
BILT-PLATES, PEERLESS, I.T. Industrial Talc, NYTAL Industrial Talc, PYRAX, VANSIL, VANTALC, VEECOTE	

SECTION 4 FLAME/FIRE RETARDANTS

Buckman Laboratories	206
--------------------------------	-----

BUSAN 11-M1	206
Dover Chemical Corp.	207
Chlorinated Paraffins	207
PAROIL, CHLORO-FLO, CHLOREZ, REZ-O-SPERSE	
Great Lakes Chemical Corp.	210
Flame Retardant Chemicals	210
GREAT LAKES, FIREMASTER	
Humphrey Chemical Corp.	211
ZB-112/ZB-237/ZB-325 (Zinc Borates)	211

SECTION 5 FLATTING AGENTS

Daniel Products Co.	214
FLAT-AYD	214
Davison Chemical Division	216
SYLOID Silicas	216
Degussa Corp.	218
Flatting Agent HK 188	218
Flatting Agent OK 412/OK 500/HK 400	219
Flatting Agent TS 100	220

SECTION 6 LATEX EMULSIONS

W.R. Grace & Co.	222
EVERFLEX Paint/Coating Emulsions	222
VERSAFLEX Acrylic Coating Emulsions	224
Polyvinyl Chemicals Inc.	225
NEOCRYL Acrylic Emulsions for Water-Borne Coatings	225
NEOCRYL Alkali-Soluble Acrylic Emulsions for Water-Borne Coatings ..	229
NEOCRYL Special Purpose Polymers for Coatings	230
Rohm and Haas	231
RHOPLEX Acrylic Latex Vehicles	231
System 2000	232
ROPAQUE	
StanChem, Inc.	233
Polymers and Polymeric Specialties: Paints and Building Products	
Polymers	233
Polymers and Polymeric Specialties: Caulks and Sealants	235
Thibaut and Walker	236
100% Acrylic Emulsions	236
PARCRYL, PARCO	
Union Carbide Corp.	239
UCAR Acrylic	239
UCAR Latex	240
UCAR Vehicle	244

SECTION 7 OILS

Hercules Inc.	248
YARMOR Pine Oil	248
NL Chemicals, Inc.	249
LINAQUA	249
Linseed Oils	250
DIAMOND "K", SUPERIOR, NON-BREAK, K.V.O., KELLIN, ESSKOL, CYKELIN, ACID REFINED, A-R VARNISH and GRINDING, SUPERFLO, OKO	
Marine Oils/Miscellaneous Modified Oils	256
KELMER, KELLOX, ADMEROL	
Soybean Oils/Soybean Lecithin	257
DEGUMMED, AGED, DIAMOND "K", SPECIAL T-BLOWN, HIGH SOLUBILITY BLOWN, DRISOY, SOY SOLINOX, KELECIN	
Sonneborn Division	260
SONNEBORN White Oils	260
KAYDOL, ORZOL, BRITOL, GLORIA, PROTOL, RUDOL, ERVOL, BENOL, BLANDOL, CARNATION, KLEAROL, SEMTOL	
Thibaut and Walker	262
Processed Oils	262

SECTION 8 PRESERVATIVES, BACTERICIDES, FUNGICIDES

Aceto Corp.	264
Biocides	264
Cosan Chemical Corp.	265
Preservatives	265
COSAN	
International Sourcing Inc.	267
Parabens	267
Interstab Chemicals	268
Microbiostatic Agents: Mercurials	268
INTERCIDE	
Microbiostatic Agents: Non-Mercurials	269
M&T Chemicals, Inc.	272
Additives	272
BIOMET	
National Mineral Products	275
Dolomite Fillers and Extenders	275
Rohm and Haas	276
Fungicide/Preservative	276
SKANE, KATHON	
Troy Chemical Corp.	277
Biocides-Mercurial	277

TROYSAN	
Biocides—Non-Mercurial	279
TROYSAN, TROYSAN POLYPHASE	
R.T. Vanderbilt Co., Inc.	282
Paint/Paper Products	282
VANCIDE, VEEGUM, VAN GEL	
Vinings Industries	285
Antimicrobial Agents	285
AMA	

SECTION 9

Resins

AO Polymer Corp.	288
AOTHANE Urethanes	288
Products	296
Water-Soluble Acrylic Polymers	296
MOCRYL	
Ketone Resins	297
KETOMUL	
Arakawa Chemical (USA) Inc.	298
Alkyd Resins	298
Tall Oil Modified Alkyds	298
ARAKYD	
Drying Oil Modified Alkyds	300
Phenol Modified Alkyds	303
Vinyl Modified Alkyds	303
Urethane Modified Alkyds	304
Polyester	304
Hard Resins	305
Rosin Ester	305
Rosin Modified Maleics	305
MALKYD	
Rosin Modified Phenolics	306
TAMANOL	
100% Phenolics	306
Polyols for Urethane	307
Water-Dispersion Resins	308
Cargill	309
Acrylics	309
Solid Thermoplastic Acrylic Resins	309
DIANAL	
Thermoplastic Acrylic Lacquer Resins	310
Alkyd Copolymers	312
Styrenated Copolymers, Vinyl Toluened Copolymers, Styrene/ Vinyl Toluene Alkyd Copolymers, Acrylic Alkyd Copolymers	
Butylated Urea Resins	315
High Solids Melamine Resins	316
RESIMENE, CARGILL	

High Solids Resins	318
Long Oil Alkyds	327
General Purpose Trade Sales and Industrial, Latex Modifiers	
Medium Oil Alkyds	331
General Purpose Industrial or Maintenance, Chain-Stopped, Traffic Alkyds, Thixotropic Vehicles, Water Extendable Alkyds, Rosin and/or Phenolic Modified	
Melamine Resins	338
Oil Free Polyesters.	339
For Reaction with Melamines, Polyol Type for 2 Component Systems	
Oil Modified Polyurethanes	340
Aromatic, Aliphatic, Urethane Prepolymers	
Short Oil Alkyds	344
Non-Oxidizing, Oxidizing, Oxidizing/Chain Stopped, Rosin and/or Phenolic Modified	
Silicone Modified	350
Oil Free Polyester, Oxidizing Alkyds, Non-Oxidizing Alkyds, Copolymers	
Water Reducible Resins	352
Cook Paint and Varnish Co.	358
COROC Resins and Additives: Acrylics	358
COROC Resins and Additives: Additives	370
COROC Resins and Additives: High Solids	373
COROC Resins and Additives: Urea and Melamines	379
COROC Resins and Additives: Water Dispersible	383
COROC Resins and Additives: Water Reducible	388
Daniel Products Co.	394
SYNOTEX 800 and ALSYNOL RS-47	394
Dock Resins Corp.	395
Acrylic Resin Solutions	395
Thermoplastic Acrylics	395
DORESCO	
Styrene Acrylates	399
Thermosetting Acrylics	400
High Solids Enamel Vehicles	401
Water Reducible	402
AQUAHYDE	
DORESCO Alkyd Resins	403
Dow Corning Corp.	406
Silicone Paint Resins	406
DOW CORNING	
Du Pont Co.	410
ELVACITE Acrylic Resins	410
HYPALON Chlorinated Polyolefins	413
Dynamit Nobel Chemicals.	414
DYNACOLL A Radiation Curable Polyesters for the Formulation of Pressure Sensitive Adhesives.	414

DYNACOLL RP Hydroxyl Terminated Polyesters for the Production of Reactive Adhesives and Sealants	416
DYNAPOL Copolyester Raw Materials for Industrial Bondings and Coatings.	418
High Crystalline, Medium Crystalline, Low Crystalline, Amorphous	
Eastman Chemical Products, Inc.	424
EASTMAN Water Dispersible Polymers	424
FRP Co.	425
FILTREZ Resins.	425
Ester Gums	425
Isomerized Rosins and Esters.	427
ISOESTER	
FRP Maleic Resins.	427
Fumaric Resins.	435
Phenolic Resins.	439
Special Resins.	445
Freeman Chemical Corp.	446
CHEMPOL Conventional Solids Resins	446
CHEMPOL High Solids Resins	450
Alkyd (Drying or Semi-Drying Oil Type), Modified Alkyds, Alkyd Copolymers, Polyesters (Oil Free Alkyds), Thermosetting Acrylic Resins, Epoxy Esters	
CHEMPOL Resins for 2-Component Urethanes	454
Water Reducible Resins	455
General Electric Co.	456
Silicone Resins	456
Henkel Corp.	458
G-CURE Acrylic Resins	458
Hercules Inc.	460
HERCOFLEX 500 Synthetic Resin.	460
Hydrocarbon and Modified Hydrocarbon Synthetic Resins	461
Aliphatic	461
ADTAC, PICCODIENE, PICCOPALE, PICCOTAC, PICCOVAR,	
Aromatic	462
Hydrogenated.	464
REGALREZ, REGALITE	
Pure Monomer	465
PICCOLASTIC, KRISTALEX, PICCOTEX	
Terpene.	467
PICCOLYTE	
Functional Resins	469
PICCOFYN	
PICCO 6000 Aromatic Hydrocarbon Resins	470
ICI Americas Inc.	471
LUMIFLON Fluoropolymer Resins.	471
O.G. Innes Corp.	475
Natural and Processed Resins	475
Manilas, Pontianaks, Damars, East Indias, Gum Elemi, Sandarac, Mastic	

Interez	480
NOVACURE Radiation Curable Oligomers.	480
NOVAMER Radiation Curable Multifunctional Monomers	482
POLY/TEX Acrylic Resins	483
EPI-TEX Epoxy Ester Resins.	483
Miscellaneous Products.	484
SYNTEX	
Waterborne/Reducible Resins	485
EPI-REZ, EPI-CURE	
Johnson Wax	487
Polymers/Resins	487
JONCRYL	
NL Chemicals, Inc.	497
Alkyd and Polyester Resins: High Solids Resins.	497
Non-Oxidizing Alkyds	497
AROPLAZ	
Polyesters/Oil-Free Alkyds	497
Silicone Modified Resins.	498
Polyester Hard Resin	498
KELPOL	
Alkyd Resins: AROPLAZ-Oxidizing (Drying Oil-Modified) Alkyds	501
Short Oil Alkyds, Medium Oil Alkyds, Long Oil Alkyds	
AROFLINT Polyester-Epoxy Resins.	506
AROPLAZ Modified Alkyds	507
AROPLAZ Modified Alkyds. AROFLAT and AROTHIX Flat	
Wall Alkyds	508
KELPOXY Elastomer Modified Epoxy Concentrates	509
KELTROL Oil Copolymers/KELPOL Alkyd Copolymers	510
Polyols for Reaction with Urethane Prepolymers	511
Polyester Polyols, Product Finishing Polyols, Acrylic Polyol	
Resins for Water-Reducible Coatings.	512
KELSOL Industrial Resins, AROLON Industrial Resins	
Urethanes: SPENKEL and SPENLITE.	518
SPENKEL Oil Modified Urethanes, SPENSOL Water Dispersible	
Oil Modified Urethane, SPENKEL Aromatic Moisture Curing	
Urethanes, SPENLITE Aliphatic Moisture Curing Urethane,	
SPENKEL Aromatic Urethane Prepolymers, SPENLITE Ali-	
phatic Urethane Prepolymers	
Urethane Solution Elastomers/WD Colloidal Urethanes.	524
Solvent Thinned Urethane Elastomers.	524
SPENKEL Aromatic Urethanes, SPENKEL Aliphatic Ure-	
thanes	
Water Thinned Urethane Elastomers	525
SPENSOL Water Dispersible Urethanes, SPENSOL Aromatic	
Urethanes, SPENSOL Aliphatic Urethanes	
C.J. Osborn	528
Copolymers	528
Silicone Modified Polyesters, Silicone Modified Polyesters and Alkyds,	