

*ENCYCLOPEDIA OF PLASTICS,
POLYMERS, AND
RESINS*

VOLUME I

***ENCYCLOPEDIA OF PLASTICS,
POLYMERS, AND
RESINS***

VOLUME I

Compiled by

Michael and Irene Ash

***Chemical Publishing Co.
New York, N.Y.***

© 1982

Chemical Publishing Co., Inc.

ISBN 0-8206-0290-6

Printed in the United States of America

PREFACE

This encyclopedia is an attempt to coordinate and unify practical information on plastic, polymer, and resin trademark products. These categories overlap, i.e., plastics are a subset of polymers, and resins are often, but not always, polymers. However, it has been our aim to give the user of this compilation fingertip availability to a large quantity of essential information about these products. This three-volume compendium has been made possible through the cooperation of the major national and international plastic, polymer, and resin manufacturers.

The information provided here has been gleaned from thousands of brochures, technical bulletins, and data sheets, but the extent of the information provided for each product has been limited by the amount of data given to us by the manufacturers. Whenever possible and/or appropriate, we have given the chemical description, applications, form and color, general, mechanical, thermal, and electrical properties of each product.

With the state of technological growth in these industries constantly increasing, this encyclopedia should serve as an important tool for chemists, engineers, and salespeople here and abroad.

We want to extend our thanks to Roberta Dakan for her tireless efforts in helping make this encyclopedia as accurate and consistent as possible.

It should be noted that when the temperatures of properties such as viscosity, density, solubility, etc. are not included, a standard temperature of 25 C is to be assumed. The information in this publication is reliable to the best of our knowledge. We would appreciate being informed of any errors or omissions so that these can be integrated into subsequent editions of this encyclopedia.

ABBREVIATIONS

@	at
ABS	acrylonitrile-butadiene-styrene
aq.	aqueous
ASTM	American Society for Testing Materials
avail	available
B.P.	boiling pt.
BS	British Standards
BS&D	backwashed, settled, and drained
Btu.	British thermal unit
C	Centigrade
Cal	calories
cc.	cubic centimeter
CC	closed cup
CD	cross direction
charact.	characteristics
chem.	chemical
cm	centimeter
COC	Cleveland Open Cup
coeff.	coefficient
comp.	compound
compr.	compressive
conc.	concentrated
conduct.	conductivity
const.	constant
cps	centipoise or cycles per second
defl. or deflect'n	deflection
dg.	decigram
dielec.	dielectric
DIN	Deutsche Industrie Normen
dissip.	dissipation
distort.	distortion
DMF	dimethylformamide
DOT	Department of Transportation
DWV	drain, waste, and vent
elec.	electrical
elong.	elongation

EPDM	ethylene propylene-diene monomer
esp.	especially
EVA	ethylene vinyl acetate
exp.	expansion
F	Fahrenheit
FAA	Federal Aviation Agency
FB	free base
FDA	Food and Drug Administration
flamm.	flammability
flex.	flexural
F.P.	freezing point
ft	foot
g	gram
G	giga
gal	gallon
gen'l.	general
gr.	gravity
GRP	glass-reinforced polyester
h	hour
HAF	high abrasion furnace carbon black
HB	horizontal burning
HC	hydrocarbon
hyd.	hydroxyl
hydrog.	hydrogenated
Hz	hertz
ICC.	Interstate Commerce Commission
ignit.	ignition
in.	inch
incl.	including
insol.	insoluble
insul.	insulation
J	joule
k	kilo
kg.	kilogram
l.	liter
lb	pound
LDPE	low density polyethylene
m	milli or meter
M	mega
max.	maximum
MC	megacycle
MD.	mold direction or machine direction

MDA	methylene disalicylic acid
mech.	mechanical
med.	medium
MEK	methyl ethyl ketone
mfg.	manufacturing
mg	milligram
MIBK	methyl isobutyl ketone
MIL	Military Specifications
min.	minute
min.	minimum or mineral
misc.	miscellaneous
mm.	millimeter
mo	months
MOCA	methylene-bis-orthochloroaniline
mod.	modulus
M.P.	melting point
m.w.	molecular weight
N	Newton
no.	number
NR	natural rubber
OC	open crucible
oz.	ounce
Pa.	Pascal
pbw	parts by weight
pcf	pounds per cubic foot
PET	polyethylene terephthalate
PMCC	Pensky-Martens Closed Cup
pH	hydrogen-ion concentration
phr	parts per hundred parts of resin or rubber
pkgs.	packages
PPD	piperidine pentamethylene dithiocarbamate
psi	pounds per square inch
pt.	point
PU	polyurethane
PVAc	polyvinyl acetate
PVC	polyvinyl chloride
PW	potable water
quat.	quaternary
qt.	quart
R&B	Ring & Ball
ref.	refractive or reference
resist.	resistance or resistivity

r.h.	relative humidity
rpm	revolutions per minute
R.T.	room temperature
s.	second
SAN	styrene-acrylonitrile polymer
sapon.	saponification
SBR	styrene-butadiene elastomer
soften.	softening
sol.	solubility or soluble
sol'n.	solution
sp.	specific
spec.	specification
SS	stainless steel
S/S	step by step
std.	standard
S/T	short time
str.	strength
surf.	surface
TCC	Taggart Closed Cup
TD	transverse direction
temp.	temperature
tens.	tensile
TDI	toluene diisocyanate
therm.	thermal
THF	tetrahydrofuran
TOC	Taggart Open Cup
trans.	transitional
UL	Underwriter's Laboratory
USDA	United States Department of Agriculture
uv.	ultraviolet
V	volt
visc.	viscosity
vol.	volume
W.E. or W. Elec.	Western Electric
wk	week
wt.	weight
yrs	years
<	less than
>	greater than
≤	less than or equal to
≥	greater than or equal to
≈	approximately equal to

The following products which are included in this volume, are registered with the U.S. Patent Office.

Abalyn®	Dion®
Acrylite®	Drapex®
Acryloid®	Duolite®
Adiprene®	Durez®
Adtac®	Dymerex®
Advastab®	Eccosil®
Advawax®	Elvace®
A-Fax®	Elvanol®
Alathon®	Elvax®
Ameripol®	Emerez®
BCI®	Envex®
Butacite®	Epolene®
CAPA®	Epolite®
Carbopol®	Epotuf®
Carstab®	Ertalon®
Celcon®	Estane®
Cellolyn®	Fluorel®
Cereclor®	Fluorocomp®
Chemplex®	Forel®
Clorafin®	Fosta®
Clysar®	Fostafoam®
Cyanacryl®	Fostalite®
Cycolac®	Fostarene®
Cycoloy®	Fosta-Tuf-Flex®
Cytor®	Gafite®
Daran®	Gantrez®
Daratak®	Geon®
Darex®	Good-rite®

CONTRIBUTORS

Abbey Plastics Corp.
11 Brent Drive
Hudson, Mass. 01749

Acme Chem. & Insulation Co./
Div. of Allied Prod. Corp.
P.O. Box 1404
New Haven, Conn. 06505

AECI Ltd./Plastics Div.
P.O. Box 1122
Johannesburg, 2000, S.A.

Allied Chem., Fibers & Plastics Co.
1411 Broadway
New York, N.Y. 10018

American Cyanamid Co.
Stamford Research Laboratories
1937 W. Main St.
Stamford, Conn. 06904

American Hoechst Corp./
Plastics Div.
Leominster, Mass.

Ashland Chem. Co.
Box 2219
Columbus, Ohio 43216

Astro Chem. Co., Inc.
1205 Godfrey Lane
Schenectady, N.Y. 12309

Bacon Industries Inc.
192 Pleasant St.
Watertown, Mass. 02172

Bayer AG
Sitz der Gesellschaft
Leverkusen; Eintragung;
Amtsgericht Leverkusen
HRB 1122, Germany

Belding Chem. Industries
1430 Broadway
New York, N.Y. 10018

Blackhawk Resin & Chem. Co.
P.O. Box 838
Tooele, Utah 84074

Borg-Warner Chem. Corp.
International Center
Parkersburg, West Va. 26101

Cal Polymers, Inc.
2115 Gaylord St.
Long Beach, Calif. 90813

Celanese Corp.
Plastics and Specialties Co.
26 Main St.
Chatham, N.J. 07928

Chemapol
Ing. Scharff
Kodanska 40
Prague 10, Czechoslovakia

Chemfax Inc.
3 Rivers Road
Gulfport, Miss.

Chemplast, Inc.
150 Dey Road
Wayne, N.J. 07470

Chemplex Co.
Rolling Meadows, Ill. 60008

Ciech Plastofarb Div.
ul. Jasna 12
00950 Warsaw, Poland

Cincinnati Milacron Chem.
West St.
Reading, Ohio 45215

Compounding Technology, Inc.
3140 Pullman St.
Costa Mesa, Calif. 92626

Conoco Chem. Div.
Continental Oil Co.
5 Greenway Plaza East
P.O. Box 2197
Houston, Tex. 77001

Continental Polymers Inc.
2225 East Del Amo Boulevard
Compton, Calif. 90220

Cosden Oil & Chem. Co.
P.O. Box 2159
3350 N. Central Expressway
Dallas, Tex. 75221

Crosby Chem., Inc.
P.O. Box 460
Picayune, Miss. 39466

CY/RO Industries
697 Route 46
Clifton, N.J. 07015

Delta Plastics Co.
Sante Fe Srprings, Calif.

Diamond Shamrock/
Functional Polymers Div.
1100 Superior Ave.
Cleveland, Ohio 44114

Dow Chem. Co.
1703 S. Saginaw Road
Midland, Mich. 48640

Du Pont de Nemours, E.I. & Co.
Wilmington, Del. 19898

Durez Div./
Hooker Chem. & Plastics Corp.
North Tonawanda, N.Y. 14120

Eastman Chem. Products, Inc.
Coatings Chemicals Div.
Kingsport, Tenn. 37662

Emerson & Cuming/W.R. Grace & Co.
869 Washington St.
Canton, Mass. 02021

Emery Industries, Inc.
1300 Carew Tower
Cincinnati, Ohio 45202

Fabri-Coate Co.
P.O. Box 8835
4500 Roger B. Chaffee Dr.
Grand Rapids, Mich. 49508

Fiberite Corp.
501-559 W. Third St.
Winona, Minn. 55987

Firestone Plastics Co.
Chem. Div.
Pottstown, Pa. 19464

Firestone Synthetic Fibers Co.
Box 450 Main St.
Hopewell, Va. 23860

Freeman Chem. Corp.
Subsid. of H.H. Robertson Co.
P.O. Box 247
Port Washington, Wisc. 53074

GAF Corp.
140 W. 51st St.
New York, N.Y. 10020

General Electric Co.
Plastics Div.
One Plastics Ave.
Pittsfield, Mass. 01201

Georgia-Pacific Corp.
290 Ferry St.
Newark, N.J. 07105

M.C. Gill Corp.
4056 Easy St.
El Monte, Calif. 91731

B.F. Goodrich Co.
6100 Oak Tree Boulevard
Cleveland, Ohio 44131

Goodyear Tire & Rubber Co.
Chem. Div.
Akron, Ohio 44316

Hammond Plastics Div./
Carl Gordon Industries, Inc.
1001 Southbridge St.
Worcester, Mass. 01610

Hardman Inc.
600 Cortlandt St.
Belleville, N.J. 07109

Hercules Inc.
910 Market St.
Wilmington, Del. 19899

Hexcel Corp./Rezolin Div.
20701 Nordhoff St.
Chatsworth, Calif. 91311

Hooker Chem. & Plastics Corp./
Industrial Chem. Group
345 Third St.
Niagara Falls, N.Y. 14302

ICI United States Inc./
Specialty Chem. Div.
Wilmington, Del. 19897

Isochem Resins Co.
Cook St.
Lincoln, R.I. 02865

Koppers Co., Inc.
1350 Koppers Bldg.
Pittsburgh, Pa. 15219

Liquid Nitrogen Processing Corp.
412 King St.
Malvern, Pa. 19355

3M/Commercial Chem. Div.
3M Center
St. Paul, Minn. 55101

Mobay Chem. Corp.
Plastics and Coatings Div.
Penn Lincoln Pkwy. West
Pittsburgh, Pa. 15205

Mobil Chem. Co.
Polymers Group
Petrochemicals Div.
P.O. Box 726
Paramus, N.J. 07652

Monsanto Plastics & Resins Co.
800 N. Lindbergh Blvd.
St. Louis, Mo. 63166

Neville Chem. Co.
Neville Island
Pittsburgh, Pa. 15225

Polymer Research Corp. of America
2186 Mill Ave.
Brooklyn, N.Y. 11234

Reichhold Chem., Inc.
RCI Building
White Plains, N.Y. 10602

Rogers Corp.
Engineered Prod. Group
Atlanta Div.
5259 Minola Dr.
Lithonia, Ga. 30058

Rohm & Haas Co.
Independence Mall West
Philadelphia, Pa. 19105

Scott Bader Co. Ltd.
Wollaston, Wellingborough
Northamptonshire, NN9 7RL England

Solvay & Cie
Rue du Prince Albert 44-
1050 Brussels, Belgium

W.R. Grace & Co./Organic Chem. Div.
55 Hayden Ave.
Lexington, Mass. 02173

Witco Chem. Corp./
Argus Chem. Div.
633 Court St.
Brooklyn, N.Y. 11231

XCEL Corp.
290 Ferry St.
Newark, N.J. 07105

A

Abalyn. Hercules Inc.

Chem. Descrip.: Methyl ester of rosin

Category/Applications: Resin with wide compatibility, excellent surface-wetting properties, viscosity, and tack for use in lacquers, inks, paper coatings, varnishes, adhesives, sealing compounds, plastics, wood preservatives, and perfumes

Form: Viscous liquid; Color: Amber

Gen'l. Prop.: Sol.: Sol. in esters, ketones, alcohols, ethers, coal tar, petroleum hydrocarbons, and veg. and min. oils; insol. in water; Sp. Gr.: 1.03; Density: 1.03 kg/l; Visc. (Gardner-Holdt): Z₁; B.P.: 352-356 C; Acid No.: 6; Sapon. No.: 160; Stability: Good thermal stability
Ref. Index: 1.5300 (20 C); Flash Pt.: 180 C (COC)

Std. Pkgs.: 205-kg metal drums (net), and in tank cars, tank trucks

Ref.: Product data No. 742-9

Abbey #100. Abbey Plastics Corp.

Chem. Descrip.: Conductive vinyl compound

Category/Applications: Thermoplastic material with outstanding electrical conductive properties for use in microphone cable, safety equipment, hospital O.R. equipment, test equipment, gasketing and tubing, radio, stereo, and TV cable, aircraft static eliminators, conductive

calendered sheeting and tapes, high voltage conductor shielding and corona barrier, antistatic devices, solvent solutions

Gen'l. Prop.: Sp. Gr.: 1.39

Mech. Prop.: Tens. Str.: 1500 psi; Tens. Elong.: 125%; Tens. Mod.: 1450 psi (@ 100% elong.); Hardness (Shore A): 88

Elect. Prop.: Vol. Resist.: 6 ohm/cm³

Abitol. Hercules Inc.

Chem. Descrip.: Primary, monohydric alcohol derived from hydrog. rosin acids
Category/Applications: Resinous plasticizer and tackifier in plastics, lacquers, inks, and adhesives; chemical intermediate in the production of oil-modified and oil-free alkyd resins

Form: Viscous liquid; Color: Colorless; Odor: Low

Composition: Avail. as viscous liquid (100% resin), and 90% solids toluene or xylene solutions

Gen'l. Prop.: Sol.: Sol. in alcohols, esters, ketones, chlorinated solvents, and in aliphatic, aromatic, or terpene hydrocarbons; insol. in water; Sp. Gr.: 1.008; Density: 8.4 lb/gal; Visc.: 400 poises (40 C); Acid No.: 0.3; Sapon. No.: 15; Hydroxyl: 4.75%; Stability: Resistant to oxidation; Ref. Index: 1.5262 (20 C); Flash Pt.: 185 C (COC)

Std. Pkgs.: 208-l (195-kg net) metal drums

Ref.: Product data No. 750-9

ABS 124ESG. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: General purpose molding grade with high tensile and flexural properties, and good heat resistance; used for spools and molded parts requiring high tensile modulus

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 225 F (D1525)

Mech. Prop.: Tens. Str.: 7700 psi (D-638); Tens. Elong.: 10% (D638); Tens. Mod.: 340,000 psi (D638); Flex. Str.: 12,000 psi (D790); Flex. Mod.: 330,000 psi (D790); Impact Str. (Izod): 2.5 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 112 R (D785)

Therm. Prop.: Distort. Temp.: 215 F (@ 264 psi, D648)

ABS 124ESGE. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: General purpose, semigloss, profile and sheet extrusion grade, for use in refrigerator breaker strips and profiles

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792), Soften. Pt. (Vicat): 220 F (D-1525)

Mech. Prop.: Tens. Str.: 6000 psi (D-638); Tens. Elong.: 25% (D638); Tens. Mod.: 310,000 psi (D638); Flex. Str.: 9000 psi (D790), Flex. Mod.: 340,000 psi (D790); Impact Str. (Izod): 2.0 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 110 R (D785)

Therm. Prop.: Distort. Temp.: 205 F (@ 264 psi, D648)

ABS 125M. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: General purpose molding grade; high flow for thin sections and intricate moldings; easily decorated, good chemical resistance; used for toys, closures, small knobs and parts

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 218 F (D1525)

Mech. Prop.: Tens. Str.: 5400 psi (D-638); Tens. Elong.: 30% (D638); Tens. Mod.: 310,000 psi (D638); Flex. Str.: 9000 psi (D790); Flex. Mod.: 355,000 psi (D790); Impact Str. (Izod): 1.5 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 109 R (D785)

Therm. Prop.: Distort. Temp.: 205 F (@ 264 psi, D648)

ABS 224M. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: General purpose molding grade copolymer; low luster with good toughness; used for tackle boxes, carrying cases

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 220 F (D1525)

Mech. Prop.: Tens. Str.: 6500 psi (D-638); Tens. Elong.: 30% (D638); Tens. Mod.: 305,000 psi (D638); Flex. Str.: 10,000 psi (D790); Flex. Mod.: 360,000 psi (D790); Impact Str. (Izod): 2.5 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 110 R (D785)

Therm. Prop.: Distort. Temp.: 205 F (@ 264 psi, D648)

ABS 236F. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: General purpose

automotive grade copolymer with high impact and good flow; injection molding; used for automotive interior parts

Form: Solid; Color: Natural and colors
Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 218 F (D1525)
Mech. Prop.: Tens. Str.: 5600 psi (D-638); Tens. Elong.: 50% (D638); Tens. Mod.: 270,000 psi (D638); Flex. Str.: 8200 psi (D790); Flex. Mod.: 320,000 psi (D790); Impact Str. (Izod): 5.9 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 103 R (D785)

Therm. Prop.: Distort. Temp.: 203 F (@ 264 psi, D648)

ABS 236MA. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: Medium impact grade copolymer for profile extrusions for automotive and appliance applications

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 220 F (D-1525)

Mech. Prop.: Tens. Str.: 5700 psi (D-638); Tens. Elong.: 35% (D638); Tens. Mod.: 285,000 psi (D638); Flex. Str.: 9500 psi (D790); Flex. Mod.: 360,000 psi (D790); Impact Str. (Izod): 4.5 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 106 R (D785)

Therm. Prop.: Distort. Temp.: 208 F (@ 264 psi, D648)

ABS 236R. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: General purpose automotive grade copolymer, low impact, high stiffness; for injection molding for automotive parts, package trays, console components

Form: Solid; Color: Natural and colors
Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 220 F (D1525)
Mech. Prop.: Tens. Str.: 7100 psi (D-638); Tens. Elong.: 11% (D638); Tens. Mod.: 310,000 psi (D638); Flex. Str.: 11,100 psi (D790); Flex. Mod.: 370,000 psi (D790); Impact Str. (Izod): 2.5 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 114 R (D785)

Therm. Prop.: Distort. Temp.: 209 F (@ 264 psi, D648)

ABS 301K. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: Injection molding, pipe fitting grade; DWV-NSF approved; high ESCR properties; fittings for DWV, sewer pipe, and conduit

Form: Solid; Color: Black

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 212 F (D1525)

Mech. Prop.: Tens. Str.: 5500 psi (D-638); Tens. Elong.: 30% (D638); Tens. Mod.: 280,000 psi (D638); Flex. Str.: 9000 psi (D790); Flex. Mod.: 360,000 psi (D790); Impact Str. (Izod): 6.0 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 103 R (D785)

Therm. Prop.: Distort. Temp.: 205 F (@ 264 psi, D648)

ABS 323MA. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: Tough, high impact, automotive grade copolymer with good flow properties for molding low stress parts; automotive ducts and bezels

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 212 F (D1525)

Mech. Prop.: Tens. Str.: 5600 psi (D-638); Tens. Elong.: 40% (D638); Tens.

Mod.: 275,000 psi (D638); Flex. Str.: 8300 psi (D790); Flex. Mod.: 348,000 psi (D790); Impact Str. (Izod): 6.0 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 103 R (D785)

Therm. Prop.: Distort. Temp.: 205 F (@ 264 psi, D648)

ABS 400P. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: General purpose molding grade copolymer; medium impact, semigloss; used for various appliance housings; UL 94 HB rating

Form: Solid; Color: Natural and colors

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 220 F (D1525)

Mech. Prop.: Tens. Str.: 5500 psi (D-638); Tens. Elong.: 30% (D638); Tens. Mod.: 290,000 psi (D638); Flex. Str.: 9500 psi (D790); Flex. Mod.: 355,000 psi (D790); Impact Str. (Izod): 4.0 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 106 R (D785)

Therm. Prop.: Distort. Temp.: 204 F (@ 264 psi, D648)

ABS 410ESG. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: Profile and sheet extrusion grade copolymer, medium impact, semigloss, for use in appliance, cooler, and similar applications

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 215 F (D-1525)

Mech. Prop.: Tens. Str.: 5100 psi (D-638); Tens. Elong.: 35% (D638); Tens. Mod.: 265,000 psi (D638); Flex. Str.: 8300 psi (D790); Flex. Mod.: 330,000 psi (D790); Impact Str. (Izod): 4.5 ft lb/in. notched (23 C, D256); Hardness

(Rockwell): 104 R (D785)

Therm. Prop.: Distort. Temp.: 203 F (@ 264 psi, D648)

ABS 414MA. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: High gloss, stiffness, automotive grade copolymer with easy flow; instrument panels

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 224 F (D1525)

Mech. Prop.: Tens. Str.: 7200 psi (D-638); Tens. Elong.: 15% (D638); Tens. Mod.: 330,000 psi (D638); Flex. Str.: 10,500 psi (D790); Flex. Mod.: 320,000 psi (D790); Impact Str. (Izod): 1.0 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 112 R (D785)

Therm. Prop.: Distort. Temp.: 204 F (@ 264 psi, D648)

ABS 420A. Mobil Chem. Co.

Chem. Descrip.: Acrylonitrile/butadiene/styrene copolymer

Category/Applications: Profile and sheet extrusion grade copolymer, high impact, matte finish, with good toughness for use for recreational vehicle interior parts, etc.

Form: Solid; Color: Natural

Gen'l. Prop.: Sp. Gr.: 1.05 (23/23 C, D-792); Soften. Pt. (Vicat): 217 F (D-1525)

Mech. Prop.: Tens. Str.: 3500 psi (D-638); Tens. Elong.: 70% (D638); Tens. Mod.: 225,000 psi (D638); Flex. Str.: 5500 psi (D790); Flex. Mod.: 214,000 psi (D790); Impact Str. (Izod): 5.0 ft lb/in. notched (23 C, D256); Hardness (Rockwell): 90 R (D785)

Therm. Prop.: Distort. Temp.: 205 F (@ 264 psi, D648)