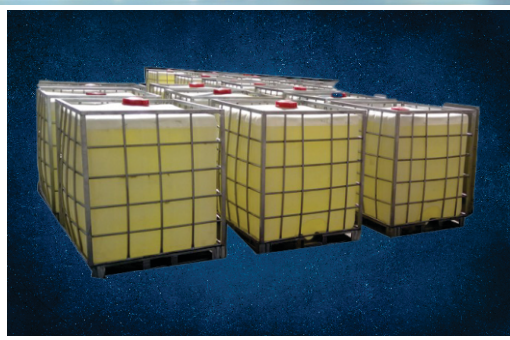
Rayeneh Group

с 1999 года









Rayeneh Group

Более 20 лет опыта работы в промышленности

Международная коммерческая сеть по торговле оборудованием, химической и катализаторной продукцией

Международный разработчик проектов в химической и горнодобывающей промышленности

Производство и торговля соединениями драгоценных металлов

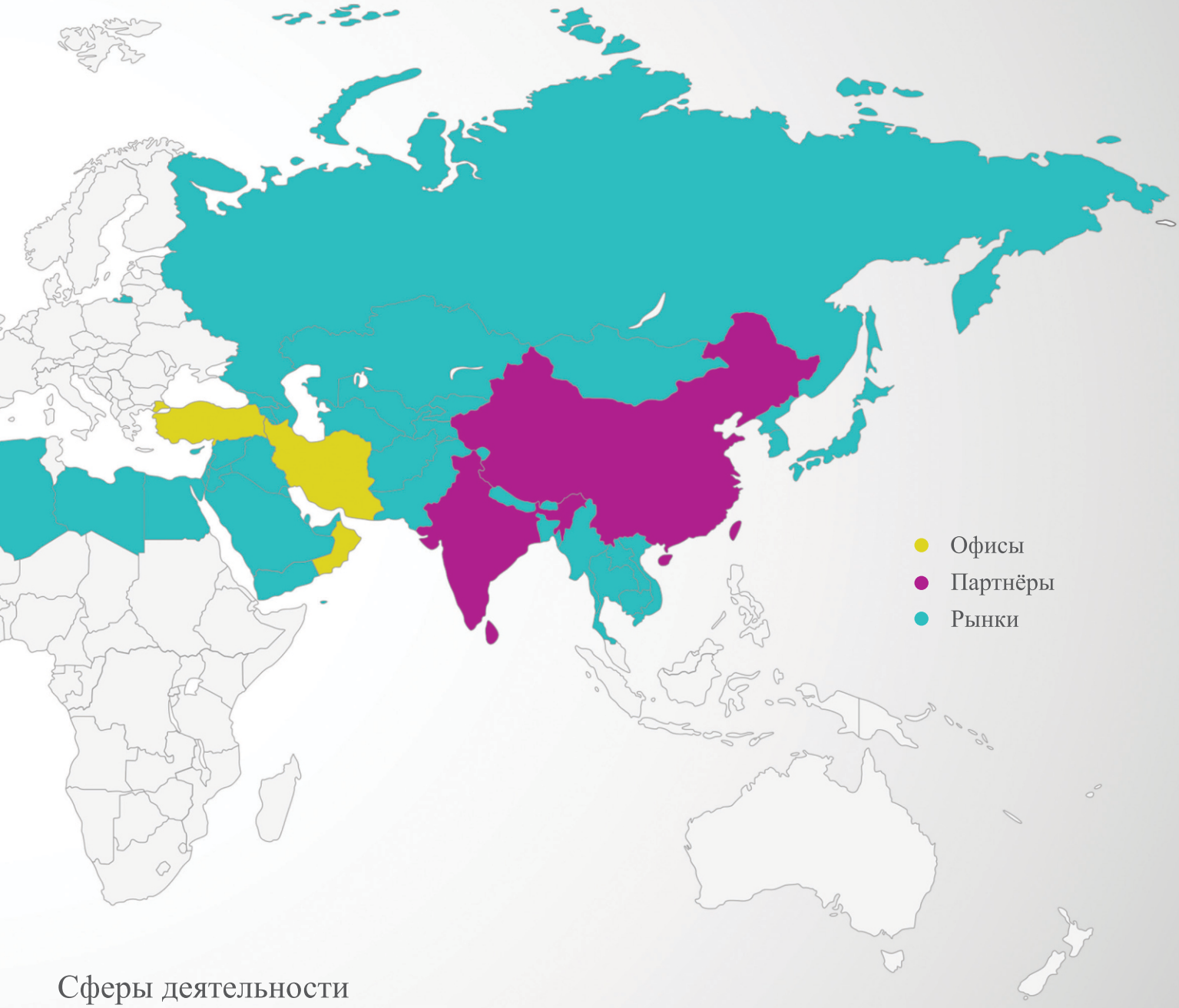
Серебро, Платина, Палладий и Золото

Преимущества высокоразвитой логистики

Инновационная, компетентная и ответственная команда

Rayeneh Group

- Разработчик международных проектов
- Международный дистрибьютер и трейдер химической продукцией



Сферы деятельности

- нефтеперерабатывающая, газоперерабатывающая и нефтехимическая промышленность
- Горнодобывающая индустрия

www.rayeneh.com/ru

A

- Acrylonitrile Butadiene Styrene (ABS)
- Acrylonitrile (ACN)
- Acetic Acid
- Activated Alumina
- Activated Carbon
- Aluminum Sulfate
- Ammonia Liquid
- Anthracite
- Anti-Foam
- Anti-Icing
- Antioxidant*(for Polymers)*
- Anti-Sludge
- Anti-Static (ASA3)

B/C

- Barite
- Bentonite
- Calcium Carbonate
- Calcium Chloride
- Calcium Hydroxide
- Calcium Hypochlorite
- Calcium Nitrate
- Calcium Stearate
- Carboxymethyl Cellulose (CMC)
- Caustic Soda
- Chlorinated Paraffin
- Citric Acid
- Coagulant
- Corrosion Inhibitor
- Cross Linker
- Cyclohexylamine

D

- De-Emulsifier
- Diatomite
- Dibenzoyl Peroxide (DBP)
- Dicumyl Peroxide (DCP)
- Diethanolamine (DEA)
- Diethylene glycol (DEG)
- Diglycolamine (DGA)
- Dilauroyl peroxide (DLP)
- Dimethyl Disulfide (DMDS)
- Dimethylformamide (DMF)
- Dispersant
- Distilled Tall Oil (DTO)
- Drag Reducing Agent (DRA)
- Drilling Detergent

E/F

- Emulsifiers
- Ethanol 96%
- Ethylene Dichloride (EDC)
- Ethyl Acetate
- Ferric Chloride
- Flocculants
- Foam Agent
- Fouling-Inhibitor

G/H/I

- GPPS
- Guar Gum
- HIPS
- Hydroxy Ethyl Piperazine (HEP)
- Hydroxypropyl Cellulose (HPC)
- H_2S Scavenger
- Hydrazine Hydrate
- Hydrochloric Acid(HCl)
- Hydrogen Peroxide(H2O2)
- Iron Chloride
- Iron Control Agent
- Iron Sulfide
- Isophthalic Acid
- Isopropyl Alcohol

J/K/L

None at this time

List of Chemicals

M/N

- Methyl diethanolamine (MDEA)
- Methylene Chloride
- Mono Ethylene Glycol (MEG)
- Mono Ethanol Amine (MEA)
- Mono Glyceride
- Morpholine
- MYPC
- N – Formylmorpholine (NFM)
- Nitric Acid
- N-Butyl Lithium (NBL)

O/P

- O_2 Scavenger
- Perchloroethylene (C_2Cl_4)
- Expanded Polystyrene (EPS)
- Phenol
- Phosphoric Acid
- Polybutadiene Rubber (PBR)
- Polyethylene (PE)
- Polypropylene (PP)
- Polyelectrolyte
    - Anionic/ Cationic
- Potassium Carbonate
- Potassium Chloride
- Potassium Hydroxide
- Potassium Persulfate
- Potassium Silicate
- Poly Aluminum Chloride (PAC)
- Poly Anionic Cellulose
- Precious Metal Compounds
    - Ag/Pd/Pt
- Poly Acrylamide

R

- Resins
    - Amberjet/Lewatit
- RO-Chemicals

S

- Silica Gel
- Sodium Bicarbonate
- Sodium Carbonate (Soda Ash)
    - Light /Dense
- Scale Inhibitor
- SDVES
- Sodium Cyanide 98%
- Sodium Hypochlorite
- Sodium Metabisulfite
- Sodium Nitrite
- Sodium Stearate
- Sodium Sulfate
- Sodium Sulfite
- Stearic Acid
- Sulfuric Acid
- Surfactant

T

- Tert-butyl Cathecol (TBC)
- TEAL
- TINUVIN (all grades)
- Topanol A
- Trisodium Phosphate
- Triethylene Glycol(TEG)
- Tri Ethanol Amine (TEA)

U/V

Urea

W/X/Y/Z

- White Mineral Oil(WMO)
- WingStage L
- Xanthan Gum
- Xylene
- Zinc Oxide
- Zinc Stearate

Diethanolamine

DEA

DIETHANOLAMINE obtained from the reaction between ammonia and ethylene oxide. DIETHANOLAMINE, have a low volatility at room temperature, is hygroscopic, presents an ammoniac odor and can appear in solid or liquid form depending on the temperature and the purity grade.

Technical Data

Characteristic	Test Method	Unit	Value
PURITY	MA – 503 (GC)	WT. %	98.5 MIN.
SP. GR (30/20 °C)	ASTM D - 891	-	1.09 - 1.094
WATER	ASTM D - 1364	WT. %	0.15 MAX.
MEA	MA – 503 (GC)	WT. %	0.6 MAX.
TEA	MA – 503 (GC)	WT. %	0.8 MAX.
COLOR Pt - Co	ASTM D - 1209	-	15 MAX.
EQUIVALENT MOL. WEIGHT	MA - 503	-	104 - 106

MEA

Monoethanolamine

MONOETHANOLAMINE obtained from the reaction between ammonia and ethylene oxide. MONOETHANOLAMINE, have a low volatility at room temperature, is hygroscopic, presents an ammoniac odor and can appear in solid or liquid form depending on the temperature and the purity grade.

Technical Data

Characteristic		Test Method	Unit	Value
PURITY		MA – 503 (GC)	WT.%	99 MIN.
WATER		ASTM D - 1364	WT.%	0.2 MAX.
COLOR Pt-Co	Steel drum	ASTM D - 1209	-	30 MAX.
	HDPE drum / ISO tank			10 MAX.
SP. GR (20/20 °C)		ASTM D - 891	-	1.017 - 1.019
EQUIVALENT MOL. WEIGHT		MA - 503	-	61 - 62.5

Dimethyl disulfide

DMDS

Dimethyl disulfide

DMDS is used in oil refineries as a sulfiding/presulfiding agent to activate the catalysts of hydrotreating units. To be specific, it is widely used as an activator inpresulfurization process ofhydrosulfurization,hydroprocessing,and precatalytic hydrocracking for naphtha,gasoline,dieseloil,kerosene,atmospheric residuum and other oil products.

Typical Physical Properties

Product Name : - Dimethyl disulfide: 2,3-Dithiabutane;Sulfa-Hitech(DMDS)

Mol. Formula : - $C_2H_6S_2$

Technical Data

Row	Specification	Unit	Quantity / Description
1	Dimethyl Disulfide	wt%	Min. 98
2	Methyl Mercaptan	wt%	Max. 0.1
3	Water	ppm	Max. 1000
4	Appearance	---	Yellow Light
5	Density at 15°C	g/ml	1.06
6	Flash Point, TCC	CEL	24
7	Molecular Weight	g/mol	94.2
8	Total Sulfur	wt%	68

Borax Decahydrate

Borax

Borax is a salt (ionic compound), a hydrated borate of sodium, with chemical formula Na2H20B4O17 often written Na2B4O7·10H2O.[1] It is a colorless crystalline solid, that dissolves in water to make a basic solution. It is commonly available in powder or granular form, and has many industrial and household uses, including as a pesticide, as a metal soldering flux, as a component of glass, enamel, and pottery glazes, for tanning of skins and hides, for artificial aging of wood, as a preservative against wood fungus, and as a pharmaceutic alkalizer. In chemical laboratories, it is used as a buffering agent.

Technical Data

Chemical Specification

Component	Content
B_2O_3	36.47-38.50 %
Equivalent $Na_2B_4O_7.10H_2O$	99.90-105.45 %
Na_2O	16.24 -17.14 %
SO_4	135 ppm max.
Cl	70 ppm max.
Fe	10 ppm max.

Particle Size Specification

Size	Content
+1.180 mm	4.00% max.
-0.063 mm	4.00% max.

Boric acid

Boric

Boric acid, more specifically orthoboric acid, is a compound of boron, oxygen, and hydrogen with formula B(OH)3. It may also be called hydrogen borate or boracic acid.[3] It is usually encountered as colorless crystals or a white powder, that dissolves in water, and occurs in nature as the mineral sassolite. It is a weak acid that yields various borate anions and salts, and can react with alcohols to form borate esters.

Technical Data

Chemical Specification

Component	Content
B_2O_3	56.25 - 56.80%
Equivalent H_3BO_3	99.92 - 100.89%
SO_4	300 ppm max.
Cl	5 ppm max.
Fe	4 ppm max.

Particle Size Specification

Size	Content
+1.000 mm	0.00% max.
-0.125 mm	45.00% min.

Light Soda Ash

Na2CO3

Soda ash, also known as sodium carbonate (Na2CO3), is an alkali chemical refined from the mineral trona or naturally occurring sodium carbonate-bearing brines, the mineral nahcolite, or manufactured from one of several chemical processes.

Technical Data

Max	Min	Unit	Chemical composition
99.6	99.2	wt%	Sodium Carbonate(Na_2Co_3)
0.7	0.5	wt%	Sodium Chliride(NaCl)
0.1	—	wt%	Sodium Bicarbonate($NaHCo_3$)
0.05	—	wt%	Sodium Solfate(Na_2So_4)
50	—	ppm	Iron(Fe)
0.2	—	wt%	Loss on heating
0.2	—	wt%	Moistore
30	—	ppm	Ni
10	—	ppm	Cr
10	—	ppm	Mn
30	—	ppm	Cu

			Characteristics
58.42	58.12	wt%	Total Alkalinity
0.6	0.45	g/cm^3	Pouring Density

:Remarks

.This report is according to the average of analyzed samples

Acceptable limits are according to the ISIRI 614-1

Dense Soda Ash

Na2CO3

Soda ash, also known as sodium carbonate (Na2CO3), is an alkali chemical refined from the mineral trona or naturally occurring sodium carbonate-bearing brines, the mineral nahcolite, or manufactured from one of several chemical processes.

Technical Data

Chemical composition	**Unit**	**Min**	**Max**
Sodium Carbonate(Na_2Co_3)	%wt	99.2	99.6
Sodium Chliride(NaCl)	%wt	0.5	0.7
Sodium Bicarbonate($NaHCo_3$)	%wt	---	0.1
Sodium Solfate(Na_2So_4)	%wt	---	0.05
Iron(Fe)	ppm	---	50
Loss on heating	%wt	---	0.2
Moistore	%wt	---	0.2
Ni	ppm	---	30
Cr	ppm	---	10
Mn	ppm	---	10
Cu	ppm	---	30
Characteristics			
Total Alkalinity	%wt	58.12	58.42
Pouring Density	g/cm^3	0.85	1.1
Mesh <40	%wt	---	40
Mesh 40-140	%wt	---	59
Mesh >140	%wt	---	1
Remarks: This report is according to the average of analyzed samples.			

Caustic Soda

NaOH

Chemical Name & Formula: Sodium Hydroxide (NaOH)
Industrial Name: Caustic Soda Flakes & Lye
Application: Including wide range of applications in various chemical field, petroleum products, pulp & paper industry,soaps & detergents.
Packing: Caustic soda (flakes) is packed in 25 Kg Double Layer (PE+PP) bags & Palletized. Caustic soda (lye 30% & 50%) in specific steel containers & PE 220 Lit drums.

Technical Data

Chemical Analaysis	Flakes	Lye
NaOH	98% Min.	50%
Na2 CO3	1% Max.	0.5 Max.
NaCl	100 ppm Max.	50 ppm Max.
Fe	10 ppm Max.	5 ppm Max.
SiO2	8 ppm Max.	4 ppm Max.
Na2 SO4	0.01% Max.	0.01% Max.
Hg	0	0

Physical Specification		
Appearance	White Flakes	Colorless
Boiling Point	1390 °C	145 °C
Melting point	318.4 °C	12 °C
Specific gravity	2.13 g/ml at 20°C	1.5 g/ml at 20°C

Rayeneh Group
www.rayeneh.com

Hydrogen Peroxide

H_2O_2

Chemical Name & Formula: Hydrogen peroxide H_2O_2 (35% & 50%)
Application: Including textile, pulp and paper, metallurgy & mining, Chemical synthesis & paint, food processing, chemical & pharmaceutical, cosmetic, electronic industries, and wastewater treatment.
Packing: HDPE 30 & 65 Lit, 1MT IBC's, bulk in 5 & 20 MT Iso tank.

Technical Data

Chemical Analaysis

H2O2	35% Min.	50% Min.
Stability	97% Min.	97% Min.
Acidity	0.05% Max.	0.05% Max.
Heavy metals	Trace	Trace

Physical Specification

Appearance	Clear & colorless solution	Clear & colorless solution
Boiling point	108 °C	114 °C
Freezing point	-34 °C	-52 °C
Specific gravity	1.128 g/ml	1.191 g/ml

Rayeneh Group
www.rayeneh.com

Chlorinated Paraffin

$C_nH_{(2n+2-m)}Cl_m$

Name and Chemical formula: chlorinated paraffin ($C_nH_{(2n+2-m)}Cl_m$)
Application: Including polyvinyl chloride (PVC) industry, metal working oils, paints, polymeric materials, flameretradant fabrics, sealants, mastics, adhesives, leather treatment chemicals, lubricants, rexine cloth, metal cutting, textile treatment, motor oils, production of carbonless copy papers, production of floor covering.
Packing: 220 Lit HDPE drums & 1000 Lit HDPE IBCs.

Technical Data

Chemical Analaysis

Chlorine Content ..... 50-52 %
Acidity ..... Max 0.1 %
Thermal Stabiliy ..... Max 0.1 %

Physical Specification

Appearance ..... Pale yellow Liquid
Density at 27 °C ..... 1.29 g/ml ± 0.1
Viscosity at 27 °C ..... 300 - 500 cSt

Rayeneh Group
www.rayeneh.com

Calcium Hypochlorite

$Ca(OCl)_2$

Chemical Name & Formula: Calcium Hypochlorite $Ca(OCl)_2$
Application: Including as anti bacterial agent, purification of drinking water, disinfectant in swimming pools, fungicide and whitening agent in textile & pulps, ...
Packing: 25 kg, 30 kg and 45 kg HDPE drums.

Technical Data

Chemical Analaysis

$Ca(OCl)_2$ ..... 65% Min.
Insoluble materials ..... 2% Max.
NaCl ..... 16% Max.
Moisture ..... 5% Max.
Heavy metals ..... Trace

Physical Specification

Appearance ..... White granules
Break-down Temperature .... 100 °C
Specific gravity ..... 2.35 g/ml at 40 °C
Solubility in water ..... 21.5 g/100ml water at 0 °C

Rayeneh Group
www.rayeneh.com

Ferric Chloride

$FeCl_3$

Chemical Name & Formula: Ferric chloride ($FeCl_3$)
Application: Including as a coagulation agent in purification of water and wastewater, as a catalyst in various chemical reactions, as pigments in dyestuff industry.
Packing: Bulk in PE tanks or 220, 1000 Lit drums.

Technical Data

Chemical Analaysis

$FeCl_3$ ..... 40±1%
Free HCl ..... 0.1% Max.
$FeCl_2$ ..... NiL
Insoluble Materials .. 0.05% Max.
Free Cholrine ..... NiL

Physical Specification

Appearance ..... Clear dark-Brown Solution
Boiling point ..... 106 °C at 30% Solution
Freezing point ..... -50 °C at 30%
Specific gravity ..... 1.4 g/ml at 15 °C at 40% solution

Rayeneh Group
www.rayeneh.com

Sodium Hypochlorite

NaOCl

Chemical Name & Formula: Sodium Hypochlorite(NaOCl)
Application: Decolorization of pulp and textile, disinfection of swimming pools and drinking water,as an anti-fungal and anti-bacterial agent in medicine.
Packing: Bulk in PE tanks or 220, 1000 Lit drums.

Technical Data

Chemical Analaysis

Active Chlorine .....150 g/L Min.
NaOH ..... 1.2% Max.

Physical Specification

Appearance ..... Greenish yellow
Boiling point ..... Decompose
Specific gravity ..... 1.21 g/ml at 150 g/l NaOCl

Rayeneh Group
www.rayeneh.com

Hydrochloric Acid

HCl

Chemical Name & Formula: Hydrochloric acid (HCl)
Application: Acidifying of oil wells, removing of sediments of boilers, cleaning of machinery and metals.
Packing: Bulk in PE tanks or 220, 1000 Lit drums.

Technical Data

Chemical Analaysis

HCl ..... 30% Min.
Free Chorine ..... Nil
Fe ..... 0.1 ppm Max.
Heavy Metals ..... Nil

Physical Specification

Appearance ..... Clear & Colorless solution
Boiling point ..... 108 °C
Freezing point ..... -42.2 °C at 31.2%
Specific gravity ..... 1.15 g/ml at 20 °C and 30% solution

Rayeneh Group
www.rayeneh.com

Monoethylene glycol

MEG

Monoethylene glycol (MEG) is an odorless, colorless, clear and viscose liquid with a sweet taste, which is produced from the reaction between water and ethylene oxide. It is miscible with water, alcohols, and many organic compounds, and has the chemical formula of C2H6O2.

Technical Data

Appearance	Colourless, transparent
Purity	99.8 wt % min
Colour (Pt-Co)	5 max
DEG	0.08 wt % max
Water	0.08 wt % max
Specific gravity, 20/20 C	1.1151-1.1156
Boiling range at 0.1013 Mpa	
5% vol	Min.196 C
95% vol	Max.199 C
Aldehydes (as formaldehyde)	8 mg/kg max
Acidity (as acetic acid)	10 mg/kg max
Iron (as Fe)	0.1 mg/kg max
Inorganic chlorides (as Cl)	0.05 mg/kg max
Ash	50 mg/kg max By Req=10 mg/kg max
UV Transmittance	
-220nm	80 min
-275nm	95 min
-350 nm	99 min

Diethylene glycol

DEG

Diethylene glycol (DEG) is an organic compound with the formula (HOCH2CH2)2O. It is a colorless, practically odorless, and hygroscopic liquid with a sweetish taste. It is a four carbon dimer of ethylene glycol. It is miscible in water, alcohol, ether, acetone, and ethylene glycol.[2] DEG is a widely used solvent.[3] It can be a contaminant in consumer products; this has resulted in numerous epidemics of poisoning since the early 20th century

Technical Data

Appearance	Colourless, transparent
Purity	99.8 wt % min
MEG	0.05 wt % max
TEG	0.05 wt % max
Water	0.05 wt % max
Colour (Pt-Co)	10 max
Specific Gravity, 20/20 C	1.1175-1.1195
Boiling range at 0.1013 Mpa	
5% vol	Min 242 C
95% vol	Max 250 C
Acidity (as acetic acid)	50 mg/kg max
Ash	50 mg/kg max

Triethylene glycol

TEG

Triethylene glycol, TEG, or triglycol is a colorless odorless viscous liquid with molecular formula HOCH2CH2OCH2CH2OCH2CH2OH. It is used as a plasticizer for vinyl polymers. It is also used in air sanitizer products, such as "Oust"[1] or "Clean and Pure". When aerosolized it acts as a disinfectant. Glycols are also used as liquid desiccants for natural gas and in air conditioning systems. It is an additive for hydraulic fluids and brake fluids and is used as a base for "smoke machine" fluid in the entertainment industry.

Technical Data

Appearance	Colourless, transparent
Purity	99 wt % min
DEG	1 wt % max
PEG	0.1 wt % max
Water	0.05 wt % max
Colour (Pt-Co)	25 max
Ash	100 mg/kg max
Boiling range at 0.1013 Mpa	
5% vol	Min 280 C
95%	Max 295 C
Specific gravity, 20/20 C	1.124-1.126

GPPS1460

GPPS1460 is a high heat resistance and molecular weight crystal polystyrene for extrusion and thick walled injection moulding application.
It is particularly useful in the production of thick sheet by direct inject gassing,where it gives expanded sheets with high mechanical properties.This grade has food contact approval.
Application:
insulation board(xps), foam sheet of food & fruits trays

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(200°C-5KG)	g/10min	ASTM D-1238	6.5
STYRENE RESIDUAL MONOMER	PPM	CLG LABPSG004 (ATOFINA TEST METHOD)	<500
VICAT SOFTENING POINT (50 °C/hr 1kg)	°C	ASTM D-1525	103
TENSILE STRESS AT BREAK	MPA	ASTM D-638	48
ELONGATION AT BREAK	%	ASTM D-638	1
TENSILE MODULUS	MPA	ASTM D-638	3200

HR2320

HR2320 is one of the styrenic ter polymers (ABS) grades with improved toughness and heat resistance versus HIPS grades.
HR2320 exhibits low shrinkage and good dimensional stability. HR2320 is widely used in general injection molding
applications. Use this information as a guide to aid you in selecting the proper resin for your applications. Mold shrinkage is
around 0.4% -0.6%
Applications: furniture, automotive parts, general injection molding, appliances casing and home appliances with heat
resistance characteristics.
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	1.2
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	20
VICAT SOFTENING POINT(50 N LOAD)	°C	ASTM D-1525	103
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	470
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	107

HR2340

HR2340 is one of the styrenic ter polymers (ABS) grades with improved toughness and heat resistance versus HIPS grades.
HR2340 exhibits low shrinkage and good dimensional stability. HR2340 is widely used in general injection molding
applications. Use this information as a guide to aid you in selecting the proper resin for your application. Mold shrinkage is
around 0.4% -0.6%
Applications: furniture, automotive parts, general injection molding, appliances casing and home appliances with heat
resistance characteristics.
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	1
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	40
VICAT SOFTENING POINT(50N LOAD)	°C	ASTM D-1525	112
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	480
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	110

HR0370

Although general purpose ABS have good enough mechanical properties for the practical use in terms of process ability,
impact strength, etc, its use is sometimes limited at high temperature due to the deformation of its molded products by heat.
So High Heat Resistant ABS (HR0370) offers an attractive alternative to general purpose ABS and other engineering plastics
making it suitable for the applications designed for the use at high temperature. Mold shrinkage is around 0.4% -0.6%
Applications: Automotive interior, Cockpit module parts, Power window, Switch panel, Pull handle, Console
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	1.2
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	17
VICAT SOFTENING POINT(50N LOAD)	°C	ASTM D-1525	102
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	450
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	106

SD0140

SD0140 is one of the styrenic ter polymers (ABS) grades with improved toughness versus HIPS grades. SD0140 exhibits
high gloss, low shrinkage, and good dimensional stability. SD0140 is widely used in general injection molding applications.
Use this information as a guide to aid you in selecting the proper resin for your application.
Mold shrinkage is around 0.4% -0.6%
Applications: furniture, automotive parts, general injection molding, appliances casing, office supplies.
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	3.2
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	23
VICAT SOFTENING POINT(50N LOAD)	℃	ASTM D-1525	97
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	450
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	110

SD0150

SD0150 is one of the styrenic ter polymers (ABS) grades with improved toughness versus HIPS grade. SD0150 exhibits low
shrinkage and good dimensional stability. SD0150 is widely used in general injection molding applications. Use this
information as a guide to aid you in selecting the proper resin for your application. Mold shrinkage is around 0.4% -0.6%
Applications: Furniture, Automotive Parts, General Injection Molding, Appliances Casing, Office Supplies.
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	1.8
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	22
VICAT SOFTENING POINT(50N LOAD)	°C	ASTM D-1525	98
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	450
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	105

SD0152

SD0152 is one of the styrenic ter polymers (ABS) grades with improved toughness versus HIPS grades. SD0152 exhibits low
shrinkage and good dimensional stability. SD0152 is widely used in general injection molding applications. Use this
information as a guide to aid you in selecting the proper resin for your application. Mold shrinkage is around 0.4% -0.6%
Applications: furniture, automotive parts, general injection molding, appliances casing, office supplies.
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	2.4
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	23
VICAT SOFTENING POINT(50N LOAD)	°C	ASTM D-1525	99
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	450
TENSILE MODULUS	KGF/CM2	ASTM D-638	21000
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	108

SV0157

SV0157 is one of the styrenic ter polymers(ABS) grades with improved toughness versus HIPS grades. SV0157 exhibits low
shrinkage, and good dimensional stability.SV0157 has high melt strengths is widely used for the production of extruded sheet
and some of considerable size and thickness shaped. Mold shrinkage is around 0.4% -0.6%
Applications: include panels for large appliances and thermoformed items such as hot tubs, recreational vehicle parts and
refrigerator liner. Use this information as a guide to aid you in selecting the proper resin for your application.
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	0.5
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	31
VICAT SOFTENING POINT(50N LOAD)	°C	ASTM D-1525	101
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	430
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	104

SH0150

SH-0150 is a high flow acrylo nitrile butadiene styrene (ABS) grade with good toughness, high impact strength excellent
mechanical and low-temperature properties. This grade Exhibits good process ability, vacuum formability, chemical
resistance and dimensional stability. This grade is suitable for processing by extrusion and use in vacuum formed, general
thin sheets and refrigerator liner sheets. Mold shrinkage is around 0.4% -0.6%
Applications: Parts with significant impact resistance, general sheets.
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	1.1
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	22
VICAT SOFTENING POINT(50N LOAD)	°C	ASTM D-1525	100
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	420
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	107

VH0800D

In addition to the typical features of general purpose ABS grades, VH0800D is specially formulated with flame retardant
chemicals to have the self-extinguish ability making it much safer for the use in the electrical & electronics applications with
the most widely accepted fire safety standards. VH0800D has excellent balance of mechanical properties and process ability.
Mold shrinkage is around 0.4% -0.6%
Applications: TV Monitor, Wiring devices
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	5.8
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	15.5
VICAT SOFTENING POINT(50N LOAD)	°C	ASTM D-1525	85
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	400
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	99

HM0560

HM0560 is one of the high modulus resins that have diversity in both manufacturing methods and material characteristics.
This grade has high impact and flexural strength, excellent mechanical properties, chemical resistance, mold ability,
dimensional stability and paint ability. Mold shrinkage is around 0.4% -0.6%
Applications: watches, toys, cassette recorders and etc.
Drying: Drying prior to processing is recommended in a desiccant de humidifying hopper dryer. An inlet air dew point of
20°F (-29°C) or below is recommended to achieve a moisture content 0.1%. Typical drying conditions are 2 hours at 180°-
190°F (82° - 88°C). Drying for 4 hours at 160° - 170°F (71°-77°C) is also adequate.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX (200°C/5KG)	GR/10MIN	ASTM D-1238	2.5
IZOD IMPACT STRENGTH	KJ/M2	ASTM D-256	13
VICAT SOFTENING POINT(50N LOAD)	°C	ASTM D-1525	107
BULK DENSITY	KG/M3	-	600
TENSILE STRENGTH AT YEILD	KGF/CM2	ASTM D-638	520
ROCKWELL HARDNESS(AT 23°C)	R.SCALE	ASTM D-785	112

LL0209AA

LL0209AA is linear low density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for blending
with conventional LDPE. Film made from pure LL0209AA has the following advantages over LDPE: better sealing, higher
puncture resistance, greater drawdown ability and higher tensile strength. This grade has food contact approval.
Applications: green house film, silage film, hand bags and general purpose film applications.

Technical Data

PROPERTY		UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG) MFR(UNDER LOAD 21.6KG/2.16KG)		g/10min	ASTM D-1238	0.9 29-30
DENSITY		gr/cm3	ASTM D-1505	0.919
VICAT SOFTENING POINT		°C	ASTM D-1525	105
FILM**				
DART DROP IMPACT	METHOD A	GR	ASTM D-1709	140
TENSILE STRESS AT YEILD	MD/TD	MPA	ASTM D-882	10/11
TENSILE STRESS AT BREAK	MD/TD	MPA	ASTM D-882	41/32
TEAR STRENGTH	MD/TD	gr/25µ	ASTM D1922	145/370
1%SECANT MODULUS	MD/TD	MPA	ISO 1184	195/205
ELONGATION AT BREAK	MD/TD	%	ASTM D-882	620/840
HAZE	-	%	ASTM D-1003	12
GLOSS(45°)	-	%°	ASTM D-2457	56

LL0209KJ

LL0209KJ is linear low density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for blending
with conventional LDPE. Film made from pure LL0209KJ has the following advantages over LDPE: better sealing, higher
puncture resistance, greater drawdown ability, easy opening properties at 2 layer film and higher tensile strength. This grade
has food contact approval.
Applications: green house film, silage film, hand bags and general purpose film applications

Technical Data

PROPERTY		UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190°C 2.16KG) MFR(UNDER LOAD 21.6KG/2.16KG)		g/10min	ASTM D-1238	0.9 29-30
DENSITY		gr/cm3	ASTM D-1505	0.919
VICAT SOFTENING POINT		°C	ASTM D-1525	105
FILM**				
DART DROP IMPACT	METHOD A	GR	ASTM D-1709	140
TENSILE STRESS AT YEILD	MD/TD	MPA	ASTM D-882	10/11
TENSILE STRESS AT BREAK	MD/TD	MPA	ASTM D-882	41/32
TEAR STRENGTH	MD/TD	gr/25µ	ASTM D1922	145/370
1%SECANT MODULUS	MD/TD	MPA	ISO 1184	195/205
ELONGATION AT BREAK	MD/TD	%	ASTM D-882	620/840
HAZE	-	%	ASTM D-1003	12
GLOSS(45°)	-	%°	ASTM D-2457	56

LL0220AA

LL0220AA is linear low density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for blending
with conventional LDPE for casting film applications and blown film for light duty film applications Film made from pure
LL0220AA has the following advantages over LDPE: good balance of mechanical properties, good optical properties. This
grade has food contact approval.
Applications: light and medium duty films, stretch film

Technical Data

PROPERTY		UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190°C 2.16KG) MFR(UNDER LOAD 21.6KG/2.16KG)		g/10min	ASTM D-1238	2.4 29-30
DENSITY		gr/cm3	ASTM D-1505	0.921
VICAT SOFTENING POINT		°C	ASTM D-1525	100
FILM**				
DART DROP IMPACT	METHOD A	GR	ASTM D-1709	90
TENSILE STRESS AT YEILD	MD/TD	MPA	ASTM D-882	10/11
TENSILE STRESS AT BREAK	MD/TD	MPA	ASTM D-882	30/25
TEAR STRENGTH	MD/TD	gr/25µ	ASTM D1922	100/300
1%SECANT MODULUS	MD/TD	MPA	ISO 1184	80/100
ELONGATION AT BREAK	MD/TD	%	ASTM D-882	1000/1100
WHITENESS INDEX	-	%	ASTM E-313	50
GLOSS(45°)	-	%°	ASTM D-2457	30

LL0220KJ

LL0220KJ is linear low density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for blending
with conventional LDPE for blown film applications. Film made from pure LL0220KJ has the following advantages over LDPE:
good balance of mechanical properties, good optical properties and easy opening properties in 2 layer film. This grade has
food contact approval.
Applications: light and medium duty films with good optical properties.

Technical Data

PROPERTY		UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190°C 2.16KG) MFR(UNDER LOAD 21.6KG/2.16KG)		g/10min	ASTM D-1238	2.4 29-30
DENSITY		gr/cm3	ASTM D-1505	0.921
VICAT SOFTENING POINT		°C	ASTM D-1525	100
FILM**				
DART DROP IMPACT	METHOD A	GR	ASTM D-1709	90
TENSILE STRESS AT YEILD	MD/TD	MPA	ASTM D-882	10/11
TENSILE STRESS AT BREAK	MD/TD	MPA	ASTM D-882	30/25
TEAR STRENGTH	MD/TD	gr/25µ	ASTM D1922	100/300
1%SECANT MODULUS	MD/TD	MPA	ISO 1184	80/100
ELONGATION AT BREAK	MD/TD	%	ASTM D-882	1000/1100
WHITENESS INDEX	-	%	ASTM E-313	50
GLOSS(45°)	-	%°	ASTM D-2457	30

LL0410AA

LL0410AA is linear low density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for blending
with conventional LDPE. Film made from pure LL0410AA has the following advantages over LDPE: better sealing, lower seal
shrinkage, greater drawdown ability and higher stiffness & toughness
Applications: green house film, silage film, hand bags and general purpose film applications.

Technical Data

PROPERTY		UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190°C 2.16KG) MFR(UNDER LOAD 21.6KG/2.16KG)		g/10min	ASTM D-1238	1 29-30
DENSITY		gr/cm3	ASTM D-1505	0.926
VICAT SOFTENING POINT		°C	ASTM D-1525	107
FILM**				
DART DROP IMPACT	METHOD A	GR	ASTM D-1709	80
TENSILE STRESS AT YEILD	MD/TD	MPA	ASTM D-882	12/13
TENSILE STRESS AT BREAK	MD/TD	MPA	ASTM D-882	42/33
TEAR STRENGTH	MD/TD	gr/25µ	ASTM D1922	80/325
1%SECANT MODULUS	MD/TD	MPA	ISO 1184	235/245
ELONGATION AT BREAK	MD/TD	%	ASTM D-882	620/850
HAZE	-	%	ASTM D-1003	12
GLOSS(45°)	-	%°	ASTM D-2457	50

LL0640AA

LL0640AA is linear low density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for blending
with conventional LDPE. Film made from pure LL0640AA has the following advantages over LDPE: good balance of
mechanical properties, good optical properties.
Applications: hand wrap stretch film, cast stretch film and display packaging.

Technical Data

PROPERTY		UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190°C 2.16KG) MFR(UNDER LOAD 21.6KG/2.16KG)		g/10min	ASTM D-1238	4 29-30
DENSITY		gr/cm3	ASTM D-1505	0.930
VICAT SOFTENING POINT		°C	ASTM D-1525	105
FILM**				
DART DROP IMPACT	METHOD A	GR	ASTM D-1709	60
TENSILE STRESS AT YEILD	MD/TD	MPA	ASTM D-882	10/10
TENSILE STRESS AT BREAK	MD/TD	MPA	ASTM D-882	32/24
ELONGATION AT BREAK	MD/TD	%	ASTM D-882	750/850
HAZE	-	%	ASTM D-1003	2
GLOSS(45°)	-	%°	ASTM D-2457	87

HD3840UA

HD3840UA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for use as
rotational molding applications.HD3840UA has the following characteristics: good impact strength, easy to demoulding, UV
stabilized, good whiteness, excellent surface finish. This grade has food contact approval.
Applications: general purpose roto molded items, septic tanks, recycling tanks

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	4
DENSITY	gr/cm3	ASTM D-1505	0.938
YELLOWNESS INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	115
TENSILE STRESS AT YEILD	MPA	ASTM D-638	15
ELONGATION AT BREAK	%	ASTM D-638	900
ESCR(IGEPAL10% F50,50°C)	HR	ASTM D-1693	5
FLEXURAL MODULUS	MPA	ISO178-197	650
CHARPY IMPACT	KJ/M2	ASTM D-6110	18

HD4005EA

HD4005EA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for use as pipe
coating applications.HD4005EA has the following characteristics: good impact strength and chemical resistance, high ESCR.
Applications: pipe coating applications.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	0.5
DENSITY	gr/cm3	ASTM D-1505	0.940
TENSILE STRESS AT YEILD	MPA	ASTM D-638	17
TENSILE STRESS AT BREAK	MPA	ASTM D-638	26
ELONGATION AT BREAK	%	ASTM D-638	600
O.I.T.	MIN	ASTM D-3895	45
HARDNESS	-	ASTM D-2240	55
MELTING POINT	°C	ASTM D-1525	125
ESCR(IGEPAL 10%,F20)	HR	ASTM D-1693-A	>1000
CHARPY IMPACT STRENGTH	KJ/M2	ASTM D-6110	NOT BREAK
VICAT SOFTENING POINT	°C	ASTM D-1525	115

HD4440EA

HD4005EA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for use as pipe
coating applications.HD4005EA has the following characteristics: good impact strength and chemical resistance, high ESCR.
Applications: pipe coating applications.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	4
DENSITY	gr/cm3	ASTM D-1505	0.944
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
TENSILE STRESS AT YEILD	MPA	ASTM D-638	18
TENSILE STRESS AT BREAK	MPA	ASTM D-638	23
ELONGATION AT BREAK	%	ASTM D-638	800

HD5030SA

HD5030SA is high density polyethylene copolymer containing butene-1(C4) as co monomer with medium content of slip
agent additive.HD5030SA has the following characteristics: good impact strength, excellent surface finish, caps with torque
free property. This grade has food contact approval.
Applications: caps and closures for packaging with free torque advantage.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	1.8
DENSITY	gr/cm3	ASTM D-1505	0.948
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	112
TENSILE STRESS AT YEILD	MPA	ASTM D-638	20
ELONGATION AT BREAK	%	ASTM D-638	1100
CHARPY IMPACT	KJ/M2	ASTM D-6110	15

HD5030EA

HD5030EA is high density polyethylene copolymer containing butene-1(C4) as co monomer.HD5030EA has the following
characteristics: good impact strength, excellent surface finish. This grade has food contact approval.
Applications: caps and closures for packaging without free torque advantage.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	1.8
DENSITY	gr/cm3	ASTM D-1505	0.948
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	112
TENSILE STRESS AT YEILD	MPA	ASTM D-638	20
ELONGATION AT BREAK	%	ASTM D-638	1100
CHARPY IMPACT	KJ/M2	ASTM D-6110	15

HD5030EA

HD5030EA is high density polyethylene copolymer containing butene-1(C4) as co monomer.HD5030EA has the following
characteristics: good impact strength, excellent surface finish. This grade has food contact approval.
Applications: caps and closures for packaging without free torque advantage.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	1.8
DENSITY	gr/cm3	ASTM D-1505	0.948
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	112
TENSILE STRESS AT YEILD	MPA	ASTM D-638	20
ELONGATION AT BREAK	%	ASTM D-638	1100
CHARPY IMPACT	KJ/M2	ASTM D-6110	15

HD5211EA

HD5211EA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for thin wall
injection molding applications.HD5211EA has the following characteristics: high warpage resistance, high flow, fast cycling
injection molding.
Applications: general purpose injection molding with indoor applications.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	11
DENSITY	gr/cm3	ASTM D-1505	0.952
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	ºC	ASTM D-1525	115
TENSILE STRESS AT YEILD	MPA	ASTM D-638	20
ELONGATION AT BREAK	%	ASTM D-638	900
CHARPY IMPACT	KJ/M2	ASTM D-6110	4

HD5218UA

HD5218UA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for thin wall
injection molding applications.HD5218UA has the following characteristics: high warpage resistance, high flow, fast cycling
injection molding, UV stabilized. This grade has food contact approval.
Applications: general purpose injection molding with outdoor & indoor applications

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	18
DENSITY	gr/cm3	ASTM D-1505	0.952
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	115
TENSILE STRESS AT YEILD	MPA	ASTM D-638	20
ELONGATION AT BREAK	%	ASTM D-638	900
CHARPY IMPACT	KJ/M2	ASTM D-6110	3

HD5218EA

HD5218EA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for thin wall
injection molding applications.HD5218EA has the following characteristics: high warpage resistance, high flow, fast cycling
injection molding. This grade has food contact approval.
Applications: general purpose injection molding with indoor applications.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	18
DENSITY	gr/cm3	ASTM D-1505	0.952
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	115
TENSILE STRESS AT YEILD	MPA	ASTM D-638	20
ELONGATION AT BREAK	%	ASTM D-638	900
CHARPY IMPACT	KJ/M2	ASTM D-6110	3

HD5813EA

HD5813EA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for thin wall
injection molding applications.HD5813EA has the following characteristics: high warpage resistance, high flow, fast cycling
injection molding.
Applications: general purpose injection molding with indoor applications, house ware, aerosol caps.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	13
DENSITY	gr/cm3	ASTM D-1505	0.958
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	ºC	ASTM D-1525	115
TENSILE STRESS AT YEILD	MPA	ASTM D-638	23
ELONGATION AT BREAK	%	ASTM D-638	1000
CHARPY IMPACT	KJ/M2	ASTM D-6110	2

HD5813UA

HD5813UA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for thin wall
injection molding applications.HD5813UA has the following characteristics: high warpage resistance, high flow, fast cycling
injection molding with UV stabilized.
Applications: general purpose injection molding with indoor & outdoor applications, houseware.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	13
DENSITY	gr/cm3	ASTM D-1505	0.958
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	115
TENSILE STRESS AT YEILD	MPA	ASTM D-638	23
ELONGATION AT BREAK	%	ASTM D-638	1000
CHARPY IMPACT	KJ/M2	ASTM D-6110	2

HD5406EA

HD5406EA is high density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for producing of
ropes and plastic nets.HD5406EA has the following characteristics: good impact strength, excellent surface finish, good
tensile parameters.
Applications: filament, ropes, plastic nets.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	0.6
DENSITY	gr/cm3	ASTM D-1505	0.954
TENSILE STRESS AT YEILD	MPA	ASTM D-638	25
TENSILE STRESS AT BREAK	MPA	ASTM D-638	30
ELONGATION AT YEILD	%	ASTM D-638	7
ELONGATION AT BREAK	%	ASTM D-638	900
IZOD IMPACT	KJ/M2	ASTM D-256	40
WITHENESS INDEX	-	ASTM E-313	50
YELLOW INDEX	-	ASTM E-313	-1
VICAT SOFTENING POINT	°C	ASTM D-1525	120

HD6040UA

HD6040UA is high density polyethylene copolymer containing butene-1(C4) as co monomer with medium content of light
stabilizer additive.HD6040UA has the following characteristics: good impact strength, excellent surface finish.
Applications: large dustbins and pails, pallet

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)	g/10min	ASTM D-1238	3.9
DENSITY	gr/cm3	ASTM D-1505	0.960
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	112
TENSILE STRESS AT YEILD	MPA	ASTM D-638	20
ELONGATION AT BREAK	%	ASTM D-638	700
CHARPY IMPACT	KJ/M2	ASTM D-6110	10

HD6070UA

HD6070UA is high density polyethylene copolymer containing butene-1(C4) as co monomer with medium content of light
stabilizer additives. It is suitable for general purpose injection molding items.HD6070UA has the following characteristics:
good impact strength, easy processing, high warpage resistance, high rigidity, UV stabilized. This grade has food contact
approval.
Applications: crates, boxes, seats

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190°C 2.16KG)	g/10min	ASTM D-1238	7
DENSITY	gr/cm3	ASTM D-1505	0.960
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	120
TENSILE STRESS AT YEILD	MPA	ASTM D-638	26
MELTING POINT	°C	ASTM D-2117	132
ELONGATION AT BREAK	%	ASTM D-638	900
FLEXURAL MODULUS	MPA	ISO178-197	1400
CHARPY IMPACT	KJ/M2	ASTM D-6110	5

HD6070EA

HD6070EA is high density polyethylene copolymer containing butene-1(C4) as co monomer with medium content of light
stabilizer additive. It is suitable for general purpose injection molding items.HD6070EA has the following characteristics: good
impact strength, easy processing, high warpage resistance, high rigidity .This grade has food contact approval.
Applications: crates, boxes, seats

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190°C 2.16KG)	g/10min	ASTM D-1238	7
DENSITY	gr/cm3	ASTM D-1505	0.960
YELLOW INDEX	-	ASTM E-313	-1
WHITENESS INDEX	-	ASTM E-313	60
VICAT SOFTENING POINT	°C	ASTM D-1525	120
TENSILE STRESS AT YEILD	MPA	ASTM D-638	26
MELTING POINT	°C	ASTM D-2117	132
ELONGATION AT BREAK	%	ASTM D-638	900
FLEXURAL MODULUS	MPA	ISO178-197	1400
CHARPY IMPACT	KJ/M2	ASTM D-6110	5

HD3808EA

HD3808EA is medium density polyethylene copolymer containing butene-1(C4) as co monomer. It is suitable for blending
with other conventional HDPE and LDPE film grades. This grade has food contact approval.
Application: green house film, silage film, hand bags, general purpose film applications.

Technical Data

PROPERTY		UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(190˚C 2.16KG)		g/10min	ASTM D-1238	0.65
DENSITY		gr/cm3	ASTM D-1505	0.938
VICAT SOFTENING POINT		°C	ASTM D-1525	122
FILM**				
BALL DROP	METHOD A	GR	ASTM D-1709(A)	50
TENSILE STRESS AT YEILD	MD/TD	MPA	ASTM D-882	16/18
TENSILE STRESS AT BREAK	MD/TD	MPA	ASTM D-882	50/45
ELONGATION AT BREAK	MD/TD	%	ASTM D-882	800/900
GLOSS(45°)	-	%°	ASTM D-2457	22

EXPANDABLE POLYSTYRENE

HS121

EPS

Technical Data

PROPERTY	UNIT	TEST METHOD	SPECIFICATION RANGE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	1.8-2.5
K-VALUE	–	SUNPOR 7.2.4	>=52
PENTANE CONTENT	WT%	SUNPOR 7.2.2	MIN 5.2
MOISTURE CONTENT	WT%	SUNPOR 7.2.3	MAX 1
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	MAX 1000

EXPANDABLE POLYSTYRENE

HS221

EPS

Technical Data

PROPERTY	UNIT	TEST METHOD	SPECIFICATION RANGE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	1-1.8
K-VALUE	-	SUNPOR 7.2.4	>=52
PENTANE CONTENT	WT%	SUNPOR 7.2.2	MIN 5.2
MOISTURE CONTENT	WT%	SUNPOR 7.2.3	MAX 1
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	MAX 1000

EXPANDABLE POLYSTYRENE

HS321

EPS

Technical Data

PROPERTY	UNIT	TEST METHOD	SPECIFICATION RANGE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	0.7-1
K-VALUE	-	SUNPOR 7.2.4	>=52
PENTANE CONTENT	WT%	SUNPOR 7.2.2	MIN 5.2
MOISTURE CONTENT	WT%	SUNPOR 7.2.3	MAX 1
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	MAX 1000

EXPANDABLE POLYSTYRENE

FC422

EPS

Technical Data

PROPERTY	UNIT	TEST METHOD	SPECIFICATION RANGE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	0.5-0.7
K-VALUE	–	SUNPOR 7.2.4	>=52
PENTANE CONTENT	WT%	SUNPOR 7.2.2	MIN 5.2
MOISTURE CONTENT	WT%	SUNPOR 7.2.3	MAX 1
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	MAX 1000

EXPANDABLE POLYSTYRENE

FC522

EPS

Technical Data

PROPERTY	UNIT	TEST METHOD	SPECIFICATION RANGE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	0.3-0.5
K-VALUE	–	SUNPOR 7.2.4	>=52
PENTANE CONTENT	WT%	SUNPOR 7.2.2	MIN 5.2
MOISTURE CONTENT	WT%	SUNPOR 7.2.3	MAX 1
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	MAX 1000

EXPANDABLE POLYSTYRENE

WP526

EPS

Technical Data

PROPERTY	UNIT	TEST METHOD	SPECIFICATION RANGE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	0.3-0.5
K-VALUE	-	SUNPOR 7.2.4	>=52
PENTANE CONTENT	WT%	SUNPOR 7.2.2	MIN 5.2
MOISTURE CONTENT	WT%	SUNPOR 7.2.3	MAX 1
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	MAX 1000

GPPS1460

GPPS1460 is a high heat resistance and molecular weight crystal polystyrene for extrusion and thick
walled injection moulding application.
It is particularly useful in the production of thick sheet by direct inject gassing,where it gives expanded
sheets with high mechanical properties.This grade has food contact approval.
Applications:
insulation board(xps), foam sheet of food & fruits trays

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(200°C-5KG)	g/10min	ASTM D-1238	6.5
STYRENE RESIDUAL MONOMER	PPM	CLG LABPSG004 (ATOFINA TEST METHOD)	<500
VICAT SOFTENING POINT (50 °C/hr 1kg)	°C	ASTM D-1525	103
TENSILE STRESS AT BREAK	MPA	ASTM D-638	48
ELONGATION AT BREAK	%	ASTM D-638	1
TENSILE MODULUS	MPA	ASTM D-638	3200

HIPS7240

HIPS7240 is a very high impact polystyrene for the extrusion industry.This grade has been designed
to diluted with crystal polystyrene.
Applications:
darty sheet,cups,trays,egg boxes,general packaging,coextrusion with GPPS at industrial sheets.food containers
The good melt strength of this grade makes it particularly suited for deep-draw thermoforming.
HIPS7240 is available in white color.

Technical Data

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
MELT FLOW INDEX(200°C-5KG)	g/10min	ASTM D-1238	4.5
STYRENE RESIDUAL MONOMER	PPM	CLG LABPSG004 (ATOFINA TEST METHOD)	<500
VICAT SOFTENING POINT (50 °C/hr 1kg)	°C	ASTM D-1525	97
ROCKWELL HARDNESS	-	ASTM D-785	SCALE/R65
TENSILE STRESS AT YEILD	MPA	ASTM D-638	23
TENSILE STRESS AT BREAK	MPA	ASTM D-638	21
ELONGATION AT BREAK	%	ASTM D-638	60
TENSILE MODULUS	MPA	ASTM D-638	1950
IZOD IMPACT	KJ/M2	ISO180	11

GPPS

General Purpose Polystyrene

TJPS-G1461

This grade is high strength & good moldability polystyrene .
Main Applications :
Extrusion and thick-walled injection molding
PS Foam, Office Stationary, Thick walled food containers, etc.

Technical Data

PROPERTIES	UNIT	VALUE	STANDARD
Tensile Strength (Yield)	(kg/cm^2)	500	D-638
Tensile Modulus of Elasticity	(kg/cm^2)	2.6×10^4	D-638
Izod Impact Strength (notched,t=6.4 mm)	(kg-cm/cm)	2.2	D-256
Vicat Softening Point (50°C/hr ,1000 g)	(°C)	98	D-1525
Melt Index (200°C , 5000 g)	(g/10 min)	6	D-1238

General Purpose Polystyrene

GPPS

TJPS-G1161

This grade is high heat for ps foam.
Main Applications:
Parts for large Home Electrical, Appliances Name Plates, Transparent Display (Covers for VTR, etc.), Office Stationary, Foamed PS, etc.

Technical Data

PROPERTIES	UNIT	VALUE	STANDARD
Tensile Strength (Yield)	(kg/cm^2)	520	D-638
Tensile Modulus of Elasticity	(kg/cm^2)	2.7×10^4	D-638
Izod Impact Strength (notched,t=6.4 mm)	(kg-cm/cm)	2.2	D-256
Vicat Softening Point (50°C/hr ,1000 g)	(°C)	104	D-1525
Melt Index (200°C , 5000 g)	(g/10 min)	4	D-1238

Компания «Rayeneh Group» является поставщиком химического сырья для промышленных предприятий на рынках Ирана, Турции, Омана, Катара, Ирака и стран СНГ. Компания была основана в 1999 году. Ассортимент поставляемой нами продукции, как и география наших поставщиков, постоянно расширяется, в данный момент мы поставляем сырье для таких отраслей промышленности как нефтеперерабатывающая и нефтехимическая; очистка воды и сточных вод; горнодобывающая. Мы предлагаем нашим клиентам всестороннюю консультационную и техническую поддержку, поиск и поставку нестандартных продуктов, решения по оптимизации технологических процессов и подбора аналогов товара с целью снижения сырьевой составляющей себестоимости. Ориентация на взаимовыгодное сотрудничество является одним из основных принципов ведения бизнеса компании.

Rayeneh Group
Supplier of Chemicals & Equipment
International Project Developer

4th floor, No. 23, Kavoosifar St., Beheshti St., Tehran-Iran 1577943119

15779 - 43119

+98 21 88549450-3

info@rayeneh.com

@Rayenehdaran

Rayenehdaran Co

Rayeneh.Co

www.rayeneh.com