



Wah Nobel Chemicals Ltd Tel: +92-(0)51-4535864 E-mail: sazmat123@gmail.com

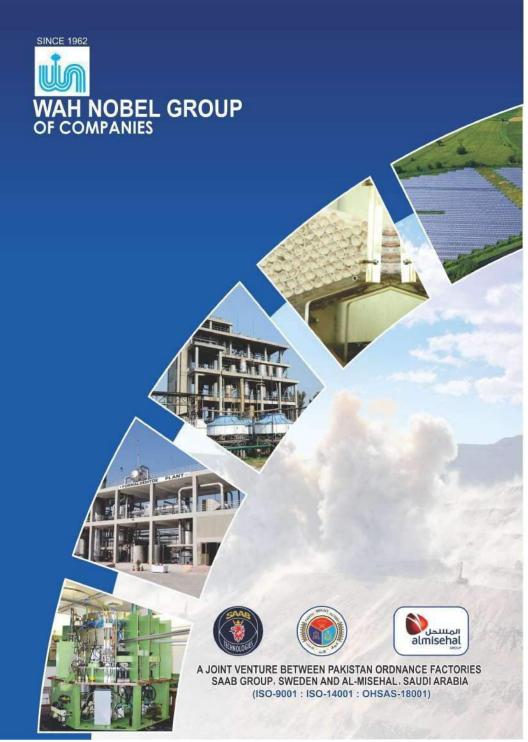
Nobel Energy Ltd Tel: +92-(0)51-4545242 E-mail: nobelenergy@wahnobel.com Wah Nobel (Pvt) Ltd Tel: +92-(0)51-4535863 E-mail: wnxmktg@wahnobel.com

DGM Supply Chain Tel: +92-(0)51-4545240 E-mail: tahseen@wahnobel.com Wah Nobel Acetates Tel: +92-(0)51-4546837 E-mail: wnamkt@gmail.com

Business Development Tel #: +92-(0)51-4545242 E-mail: bd@wahnobel.com

WAH NOBEL GROUP OF COMPANIES G.T ROAD WAH CANTT PAKISTAN. PHONE: (92-51) 4545243-6, FAX: (92-51) 4535862

www.wahnobel.com







Wah Nobel Develops, Manufactures, Markets and Maintains a Wide Range of Commercial Explosives, Accessories and Industrial Chemicals of International Standards and have foot prints in Energy Sector





SWEDEN

Saab Group: It is a Swedish aerospace and defense company, founded in 1937. In 2010 the company restructured from fifteen business units into five business areas, Aeronautics, Dynamics, Electronic Defense Systems, Security, Defense Solutions, Support and Services.





PAKISTAN

Pakistan Ordnance Factories: It is the largest defense industrial complex under the ministry of defense production, producing conventional arms & ammo of international standards. Presently POF comprises of 14 ordnance factories and two commercial subsidiaries i.e. Wah Industries Limited & Wah Nobel Group.





SAUDI ARABIA

The Almisehal Co: is a foremost supplier of high technology systems and services to the Kingdom of Saudi Arabia. The group enjoys a reputation for reliability, service delivery and excellent customer support. The group headquarter is in Riyadh, Saudi Arabia.

2



LT. GENERAL ALI AMIR AWAN, HI(M) CHAIRMAN



WAH NOBEL (PVT) LTD

The parent company was established in 1962 in collaboration with SAAB Group, Sweden (erstwhile Bofors Sweden). It is a Joint Venture of Pakistan Ordnance Factories through Wah Industries Ltd, SAAB Group and Al-Misehal Group, Saudi Arabia.



The Company produces a wide range of Commercial Explosives and Accessories including Emulsion Explosives, Powder Explosives, Seismic Explosive and initiating devices. The quality of Company's products conform to international standards beside catering local requirement. It is also engaged in exports and earn valuable foreign exchange. Its products are used in oil and gas prospecting, mining, tunneling, quarrying and cement industry etc.



The Company has played a significant role in the completion of mega projects of national importance like Mangla Dam, Tarbela Dam, Karakoram Highway, Motorways etc. The Company at present is engaged at host of Hydro Power Projects, Infrastructural developmental Projects of CPEC, Saindak Copper/Gold Project, Mining Sector and with Oil & Gas Prospecting Companies.



DEDICATED TO QUALITY





PRODUCTION IN PROCESS







WAH NOBEL IS A MULTINATIONAL GROUP AND HAS 7 COMPANIES ON ITS ORBIT

Wah Nobel was founded in 1962 as a subsidiary of Pakistan Ordnance Factories through Wah Industries Ltd and operates on commercial frequency and wavelength.

The equity shareholders include Wah Industries Ltd (51.75%) SAAB Group, Sweden (27.23%) (Erstwhile Bofors, Sweden) and Al-Misehal Group, Saudi Arabia (21.02%).



Wah Nobel (Pvt) Ltd
 The company was established in 1962.
 Engaged in production of wide range of Commercial Explosives. Detonotors,
 Accessories and provision of Blasting



Wah Nobel Chemicals Ltd
 Established in1982. Wah Nobel
 Chemicals produces an impressive
 range of high quality industrial
 Chemicals and Resins which have
 diverse applications in numerous
 Industrials.



• Wah Nobel Acetates Ltd Woh Nobel Acetates was established in 1998 keeping in mind the company's policy of constant evolution and expansion. The Company caters to various industries.



Nobel Energy Ltd
 Nobel Energy Ltd has been setup to realize
 energy projects in Hydra and Salar Power
 Projects in 2014.



Wah Nobel Baluchistan Explosives Pvt. Ltd ah Nobel Baluchistan Explosives (I

Wah Nobel Baluchistan Explosives (Pvt) Ltd was set up at Salndak in 1993 to cater for the commercial explosives needs at Baluchistan and specifically the requirement of the Salndak Copper/Cold Project



 Wah Nobel Gilgit-Baltistan Pvt. Ltd

Wah Nobel Gilgit - Baltistan (Pvt) Lid was set up in 2014 at Gilgit and site office at Dasu to meet the Commercial Explosives requirement of upcoming. Mega Infrastructural Development Projects related to China Pakistan Economic Corridor (CPEC)



Gezhouba Blasting-Wah Nobel Pvt. Ltd

Wah Nobel has established a Joint Venture Blasting Services Company with Gezhouba Explosives, China for Provision of Blasting Services on Mega Infrastructural Development Projects, Mining and Corporate Sector.

3

www.wahnobel.com Wah Nobel Group of Companies 4 www.wahnobel.com Wah Nobel Group of Companies



WAH NOBEL ACETATES LTD

Wah Nobel Acetates Ltd was established in 1998. The Company caters for various industries by producing Butyl Acetate and Ethyl / Propyl Acetate and Hand Sanitizer.



The products are used in textile, leather, plastic, rubber, pharmaceutical, food, paints and printing ink industries. The company is engaged in production of Hand Sanitizer on WHO approved formulation and is approved by FDA, USA.



PROUD WORKFORCE











WAH NOBEL CHEMICALS LTD

Wah Nobel Chemicals Ltd was established in 1982. The Parent Company i.e Wah Nobel (Pvt) Ltd has 55.23% shares, while the remaining shares are held by various institutions and General Public.



Wah Nobel Chemicals produces an impressive range of high quality Industrial Chemicals and Resins which have diverse applications in numerous industries i.e. textile, leather, agriculture, dying, paint, lacquer, varnish, plywood, chipboard, hardboard and sugar industries etc.



PRODUCT RANGE

- · Formaldehyde 37% & 42%
- Urea Formaldehyde Glue 50% & 60%
- Urea Formaldehyde Concentrate 63% & 85% (UFC63 UFC85)
- · Phenolic Glue and Foundry Resins of Various Grades
- Urea Formaldehyde Moulding Compound (UFMC)
- Glazing Powder
- Disinfectants and Surface Cleaners



DEDICATED ENGINEERS







UFMC PLANT



NEW FORMALDEHYDE PLANT



COMMITTED TO EXCELLENCE

www.wahnobel.com Wah Nobel Group of Companies 6 www.wahnobel.com Wah Nobel Group of Companies 5



WAH NOBEL GILGIT - BALTISTAN LTD

Wah Nobel Gilgit - Baltistan (Pvt) Ltd was set up in 2014 at Gilgit with site office at Dasu to meet the Commercial Explosives requirement of upcoming Mega Infrastructural Development Projects, related to the China Pakistan Economic Corridor (CPEC).

The Company is geared up to meet the Commercial Explosives needs of infrastructural development projects at the doorstep and shall contribute towards their early completion.









OUR PRODUCT'S PERFORMANCE IN FIELD



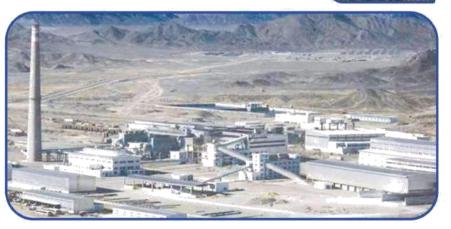
WAH NOBEL BALUCHISTAN EXPLOSIVES (PVT) LTD

Wah Nobel Baluchistan Explosives (Pvt) Ltd was set up at Saindak in 1993 to cater for the Commercial Explosives needs of Baluchistan and more specifically requirement of the Saindak Copper / Gold Mining Project.



The Company is engaged with the Saindak Project since its inception and contributing a great deal in the National Development and also earning valuable Foreign Exchange.





SAINDAK PROJECT

www.wahnobel.com Wah Nobel Group of Companies 8 www.wahnobel.com Wah Nobel Group of Companies



JOINT VENTURE - WAH NOBEL & GEZHOUBA EXPLOSIVE COMPANY, CHINA

Wah Nobel has established a Joint Venture Blasting Services Company with Gezhouba Explosives, China namely Gezhouba – Wah Nobel Blasting (Pvt) Ltd for Provision of Blasting Services on Mega Infrastructural Development Projects, Mining and Corporate Sector.



The Blasting Services Company Provides one window economical, efficient and safe solution to the clients.



Presently Company is Providing Blasting Services on Hydro Power Projects. Company Head Office is in Islamabad.





SHAREHOLDERS AGREEMENT SIGNING CEREMONY

NOBEL ENERGY LTD

Nobel Energy Limited represents Energy Division of Wah Nobel Group. Its provides one window Solar Energy Solution on turnkey basis i.e. Project Front End Engineering, Designing, Procurement, Installation / Commissioning, Operations and Maintenance.



Nobel Energy Limited is actively pursuing / completed Solar Power Projects and is also focused on development of Hydro Power Projects.



2 MW SOLAR PROJECT AT WAH NOBEL CHEMICALS





250 KW SOLAR POWER PROJECT AT HATTAR



125 KW INSTALLED AT WAH NOBEL HEAD OFFICE

www.wahnobel.com Wah Nobel Group of Companies 10 www.wahnobel.com Wah Nobel Group of Companies



SALIENT EVENTS GALLERY

























25 YEARS SERVICE RECOGNIZATION AWARD CEREMONY

M

TRAINING FACILITIES

Wah Nobel affords training on modern blasting techniques for economical, efficient, safe handling, storage, usage of commercial / seismic explosives required for various types of rocks and geophysical conditions through seminars / workshops and demonstrations.



Training sessions provide an opportunity to the mining, construction and geophysical engineers / technicians for updating their knowledge and skills on the latest blasting techniques.





TRAINING SESSIO







MARKETING TRAINING PARTICIPANTS

www.wahnobel.com Wah Nobel Group of Companies 12 www.wahnobel.com Wah Nobel Group of Companies 11

COMMERCIAL **EXPLOSIVE & ACCESSORIES**



OUR CLIENTAGE

www.wahnobel.com

INFRASTRUCTURE SECTOR GRC SAMBÜ FWO **(** LOTTE INCINEDING & DAEWOO E&C SINOTEC SINSHYDRO (KAIDI 割曲 中國路接工程有限責任公司 CON 中国高州坂集団銀份有限公司 MICE中国冶金料工集团有限公司 DISTRIBUTOR SECTOR CEMENT SECTOR Carrier T Attock Cement OIL AND GAS SECTOR CHIPC **SENSHE** MPCL DanaEnergy CHEMICALS SECTOR

GUE

ELFY



Commercial Explosives and Accessories

Powder Explosives

WABONITE

Wabonite is a low-density explosive of relatively high weight strength, well suited mainly as column charge in all types of rocks where conditions are moderately dry. It is a non-cap sensitive explosive and requires a primer for initiation. Wabonite has excellent storage properties and offers maximum safety in handling and transportation.

Technical Data

Density 0.90g/cc - 0.95 g/cc
Gas Volume 918 lit./kg
V.O.D (Unconfined) 3000 m/sec
Sensitivity Primer Required





Wapril is a mixture of Ammonium Nitrate and fuel oil having a special sensitizer designed to give optimum blasting performance. Wapril is a low cost explosive which is extensively employed as column charge in all types of rock blasting operations and is particularly used as main charge (with primer) in large diameter hole blasting

Technical Data

Density 0.80g/cc-0.85gcc

Gas Volume 988 lit/kg
V.O.D (unconfined) 2500 m/sec
Sensitivity Primer required

Consistency Powder

Powder explosives are available in polyethylene tubes of 50mm x 500mm, 63mm x 500mm & 75mm x 500mm. It is also available in 25 Kg Polyprophylene lined bags.





Commercial Explosives and Accessories

Dynamites

S-3 (SEISMIC EXPLOSIVE)

The severe conditions encountered in oil prospecting demand explosives of a special type. S-3. The seismic explosive manufactured by Wah Nobel is the best answer to such demands. S-3 has excellent water resistance and is capable of withstanding extremely high hydrostatic pressure. It is cartridged in specially designed high density rigid plastic tubes which can be coupled with one another to make the desired length of the column of charge.

Technical Data

Density 1.50-1.55 g/cc
Gas Volume 520 lit./kg
V.O.D (Unconfined) +5500 m/sec
Sensitivity Detonator No. 8
Consistency Gelatinous



WABOX

Wabox is suitable for all types of rock blasting operations. It is manufactured in different grades, These explosives have excellent blasting properties, so highest level of safety in handling and transportation as well as in storage is maintained. They are meant for hard and medium hard rocks and are suitable in dry and wet conditions for quarrying, stripping and underground mining. These explosives give excellent results in underwater blasting as well. All grades of Wabox are manufactured according to the requirements of the customers.

Technical Data

Density 1.40-1.45 g/cc
Gas Volume 860 lit./kg
V.O.D (Unconfined) +5000 m/sec
Sensitivity Detonator No. 8
Consistency Gelatinous



EXPLOSIVE

WABOFITE

WABOFITE

Wabofite is an oxygen-balanced semi-gelatinous dynamite. It is employed for presplitting, smooth and controlled blasting. It can also be used as a base charge in medium, hard and soft rocks. In dry and wet bore holes it is also used as a column charge in quarrying and is ideal for tunnel blasting.

Technical Data

 Density
 0.90-1.00 g/cc

 Gas Volume
 873 lit./kg

 V.O.D (Unconfined)
 3000-3500 m/sec

 Sensitivity
 Detonator No. 8

 Consistency
 Semi Gelatinous

All explosives are available in cartridge (paper/polyethylene) of dimensions 25 mm x 200 mm, 32 mm x 200 mm, 50 mm x 500 mm, 63 mm x 500 mm & 75 mm x 500 mm. S-3 is also available in hard plastic tubes of 57 mm x 410 mm.

www.wahnobel.com Wah Nobel Group of Companies 16 www.wahnobel.com Wah Nobel Group of Companies 15



Commercial Explosives and Accessories

Blasting Accessories

WABOCORD (DETONATING CORD)

Wabocord consists of a core of high explosive contained in polythene and wrapped in various layers of cotton/jute yarn. The detonating cord is then coated with PVC, giving it a high tensile strength and making it water proof. The structure of Wabocord assures its efficient field performance as it is unaffected by both heat and cold within a wide range of temperatures i.e. from -60°C to 30°C.

Technical Data

Velocity of detonation 6000-7000 m/sec

Water resistance Water proof, can withstand pressure

of 25 meter water head for 48 hours

Explosive grammage 10±1 g/m

Packing: 4 reels of 250 meters each, packed in cardboard box. Also available

in cardboard box. Als in 20 and 40 g/m



SAFETY FUSE

Safety fuse consists of a central core of specially formulated black powder with jute and cotton covering, Water proofing is done by bitumen, wax as well as PVC. It is designed to propagate flame to the plain detonator within specified time limits.

Technical Data

Burning Time 110-160 sec/m in dry conditions

Coatina PVC/Bitumen

Packina: 4 reels of 250 meters each, packed

in a cardboard box



MS/HS ELECTRIC DELAY DETONATORS

Milli second and half second delay detonators are meant to effect delayed blasting action in multi-row bench blasting and tunneling. This action greatly improves blasting results as better fragmentation and ground vibration control is achieved. MS delays are used only for surface blasting while in underground blasting, a combination of both MS and HS detonators is employed.

MS Delay Electric Detonators

Period Delay Time Internal Standard leg wise 1-20 25-500 ms 25 ms 3.5 mtr

HS Delay Electric Detonators

www.wahnobel.com

Period DelayTime Internal Standard leg wise

1-10 500-5000 ms 500 ms 3.5 mtr





Commercial Explosives and Accessories

Emulsion Explosives

EMULITE - 150 / EMULITE - 150 (G)

This cap sensitive explosive has plastic consistency and is very suitable for achieving high loading density. It has excellent blasting properties. It can be used as bottom charge for any kind of blasting. Due to its consistency and high water resistance, it can be confidently employed for deep underwater blasting.

Technical Data	EMULITE-150	EMULITE-150 (G)	
Density	1.25 g/cc	1.25 g/cc	
Gas Volume	830 lit./kg	860 lit./kg	
V.O.D (Unconfined)	5000-5500 m/sec	4600-5000 m/sec	
Sensitivity	Detonator No. 8	Detonator No.8	
Consistency	Emulsion	Emulsion	

EMULITE-100 / 100 (G)

Suitable for pre-splitting, smooth and controlled blasting. In dry and wet bore holes it is also used as a column charge and is ideally suited for tunnel blasting.

Technical Data	Emulite-100	Emulite-100(G)
Density	1.20 g/cc	1.20 g/cc
Gas Volume	900 Lit. /kg	932 lit./kg
V.O.D (unconfined)	5000-5500 m/sec	4500-5000 m/sec
Sensitivity	Detonator No. 8	Detonator No. 8
Consistency	Emulsion	Emulsion



17

SEISMIC EMULITE (ES-3)

Seismic emulsion explosives meet the highest standard of safety required in rough and tough conditions of seismic prospects. Seismic Emulite has excellent storage properties especially for high temperature and humid climate.

Technical Data

 Density
 1.20-1.24 g/cc

 Volume
 796 lit./kg

 V.O.D (unconfined)
 > 5400 m/sec

 Sensitivity
 Detonator No. 8

 Consistency
 Emulsion

PERMISSIBLE EMULITE (E-408)

Emulite-408 is of special composition for use in gassy coal mines. It produces short lived detonation flames and prevents firedamp or coal dust explosion in underground coal mines. This explosive can be employed in underground mining of other ores as well.

Technical Data	E-408
Density	1.12-1.15g/cc
Gas Volume	820 lit./kg
V.O.D (unconfined)	4400 m/sec
Sensitivity	Detonator No. 8

Consistency Emulsion
All explosive are available in cartridges (paper / polyethylene) of dimensions
25 mm x 200 mm, 32 mm x 200 mm, 50 mm, 63 mm x 500 mm & 75 mm x 500 mm.





Commercial Explosives and Accessories

Leher Ignition

Leher is the trade name of the latest "Non-Electric Initiation System"

Advantages

No stray current or radio transmission hazards No side initiation.

No noise problem.

Simple and rational connections

Varieties of Leher Ignition System

Leher GD/MS Leher MONODET Leher Instantaneous



LEHER GD/MS

Period No Delay Time (ms) Interval (ms) Standard Tube length (mt.)
1-20 25-500 25 5,10,15,20,25

LEHER MONODENT

Surface/Delays/Connectors Description **Basic Detonators** Code MD 475 | MD 500 SD-0 | SD-25 | SD 50 Delay Time ms 475 500 0 25 50 Yellow Blue Red Colour

LEHER INSTANTANEOUS

For specific operations. Leher Instantaneous are also available in various tube lenaths.

Packing

10 detonators are vacuum packed in Polythene bag. Leher with tube lengths above 10 mtr. 05 Nos dets are vacuum packed in Polythene bag.

10 Polythene bags are packed in a cardboard box.







Commercial Explosives and Accessories

Detonators

DETONATOR NO. 8 (PLAIN)

Standard type Plain Detonator No. 8 consists of a base charge of high explosive and a primer charge of an initiating explosive pressed into an Aluminum tube. It is used with safety fuse.

Technical Data

Length of Aluminium casing 38 ± 1 mm (Nominal)

Outer Dia 7 ± 0.1 mm

Use In combination with safety fuse

Packing

100 Dets. are packed in a smaller card box. 50 small boxes are packed in a master cardboard box containing a total of 5000 detonators.

ELECTRIC DETONATOR NO. 8

Electrical energy is required to initiate electric detonators. The advantage of electric firing over firing with safety fuse and plain detonator is that several shots can be connected up and fired simultaneously with much greater control over the blast.

Technical Data

Length of Aluminum casing 45 ± 0.6 mm Standard Leg Wire 3 mtr. Outer Dia 7 ± 0.1 mm

Packing

10 Dets. are packed in a smaller card box. 50 small boxes are packed in a master cardboard box containing a total of 500 detonators.

SEISMIC DETONATORS

Seismic Detonators are specially formulated, high density, high energy, detonator sensitive seismic explosive designed exclusively to meet the rigid requirements and environmental extremes associated with geophysical exploration. Offering moderate velocity and extraordinarily low gas production, they improved seismic energy across usable bandwidth for superior final data as well as improved signal-tonoise ratios.

Technical Data

 Material
 Aluminum

 Length
 45 - 45.7 mm

 Diameter
 7.0 - 7.2 mm

wire length 4.5, 12, 24 and 30 meters



19

www.wahnobel.com Wah Nobel Group of Companies 20 www.wahnobel.com Wah Nobel Group of Companies



Industrial Chemicals

Polymers

FORMALDEHYDE - FA 37%

Applications

General purpose formalin is suitable for Tanneries, Poultry/Sugar Industries and for manufacturing Urea and Phenolic Glues.

Specification

Grade Commercial Appearance Water like Formaldehyde content* 36.8 - 38.6 % (w/w) Methanol content* 2.5 - 10 % (w/w)

Density 1.032-1.11 a/cc at 25 °C 0.005 - 0.03 % (w/w) Acidity as Formic Acid

Ash content (max.) 2 % by wt.

Packing: 30 liters is packed in plastic can, 200 liters in GI drum while bulk quantities are packed in SS tanker.

UREA FORMALDEHYDE CONCENTRATE 85% - UFC 85

Applications

Used as anti Urea (granular) manufacturing process. Also suitable for manufacturing U.F. Glue.

Specifications

Appearance Water like

Viscosity 250 - 600 cps at 25°C Density 1.310 - 1.330 a/cc at 25°C На 8.0 - 9.0 at 25°C

Formaldehyde 60±2% by weight Urea 25±1% by weight 15± 1.0 % by weight Water Shelf life 6 months at 25°C

Packing: 30 liters in plastic can and bulk quantities in SS tanker.

UREA FORMALDEHYDE CONCENTRATE 63% - UFC 63

Applications

Used in the manufacturing of Moulding Compounds. Also suitable for manufacturing U.F. Glue.

Specifications

Appearance Waterlike Viscosity

10-20 cps at 25°C Density 1.200 - 1.250 g/cc at 25°C

7.0-8.0 at 25°C рН Formaldehyde 45±1% by weight Urea 18 ±1% by weight Water 37±1.0% by weight 6 months at 25°C



Packing: 30 liters packed in plastic can while bulk quantities are packed in SS tanker.

INDUSTRIAL CHEMICALS

^{*} Formaldehyde concentrations 36.5-38.5% with 3-11% Methanol contents are produced on request.



Industrial Chemicals

Polymers

UREA FORMALDEHYDE MOULDING COMPOUND (UFMC)

Applications

Used in the manufacturing of Dish Ware and electrical accessories.

Specifications

Appearance Powder 150± 10 °C Moulding Temp 20-50% Moisture contents Bulk Density 0.47-0.7 a/cc

Passed through 60 mesh Grain size

Storage Stability 12 week at 25 °C

Packing: 25 kg in polypropylene bag available in White, Mango & Off-white colours.

PHENOLIC RESIN (NOVOLAC) - KF 800

Application

Suitable for coating silica sand in the hot sand coating process.

Specifications

Appearance Granules Softening point 90 ± 10 °C Moisture (max.) 1.0 % by wt. Ash $1.0 \pm 0.2 \%$ by wt. Shelf life Six months at 25°C

Packing: 50 kg in polypropylene bag.

FOUNDRY RESIN (NOVOLAC) - FN 700

Applications

Used in the manufacturing of tundish board and ingot mould hot tops and in corning shell moulding process.

Specifications

Appearance Powder (85% 200 mesh)

3.8-4.0% by wt Nitrogen 0.5-0.9% Moisture contents

Ash contents 0.8-1.2% at 950°C

Shelf life One year at 25°C

Packing: 50 kg in polypropylene bag.

PHENOLIC RESIN (NOVOLAC) - FN 600

Applications

Used in the manufacturing of Cutting/Grinding disc.

Specifications

Appearance Powder (90% 250 mesh)

Softening point 100 ± 10°C Moisture content 0.5-0.9°C

0.8-1.2 % at 950°C Ash content Shelf life Six months at 25°C

Packing: 25 kg are packed in a cardboard box.



Industrial Chemicals

Polymers

GLAZING POWDER

Specifications

Used for coating of Dish Ware

Appearance Powder 150+10 C Moulding Temp Moisture 20 - 40% 0.3 - 0.5 g/cc Density Curina Time 30-40 s

Packing: 30 liters in plastic can, 200 liters in GI drum & bulk quantities in SS tanker.

PHENOL FORMALDEHYDE (RESOLE) - KN 300

Application

Suitable for the production of water proof Plywood.

Specifications

Appearance Maroon Red liquid Viscosity 200 - 400 cps at 25°C 1.10-1.2 g/cc at 25°C Density 12.0-13.5 at 25°C Solid Content 43 ± 2 % by wt. Two months at 25°C

Packing: 30 liters in plastic can, 200 liters in steel drum & bulk quantities in MS tanker.

PHENOL FORMALDEHYDE (RESOLE) - KN 900

Application

Suitable for coating of abrasive in the manufacturing of Cutting / Grinding Disc.

Specifications

Grade Abrasive binder 200 - 400 cps at 25°C Viscosity 1.19-1.23 a/cc at 25°C Density 8.0 - 8.5 at 25°C Solid Content 70 - 80 % by wt. Shelf life Two months at 25°C

Packing: 30 liters in plastic can.

PHENOL FORMALDEHYDE (RESOLE) - KN 750

Application

Used as Cold-setting foundry sand (Silica/Quartz) binder for the production of Moulds and Cores.

Specifications

Grade Foundry

Viscosity 200 - 400 cps at 25°C 1.17-1.22 g/cc at 25°C Density 12.0-14 at 25°C Ha Solid Contents $50 \pm 2\%$ by wt.

Packing: 30 liters packed in plastic can & 200 liters in steel drum.

Wah Nobel Group of Companies Wah Nobel Group of Companies www.wahnobel.com 24 www.wahnobel.com 23



Wah Nobel Acetates

Acetates

ETHYLACETATE

Ethyl Acetate is a stable, colourless and inflammable liquid with a pleasant odour. It is used widely in formulating gravour, printing inks, adhesives and lacquers. It is used extensively as a cellulose nitrate solvent in the Manufacturing of products such as artificial and patent leathers, inks, cement, photographic films and linoleum. Ethyl Acetate is also used in the formulation of products like candy glaze, cleaning fluids, flavours and spirit varnishes.

Technical Data

Content >99.5% (weight%)
Density 0.878 – 0.883 gm/ml

Moisture 0.20% Acidity (as CH3COOH) 0.005% Evaporation residue 0.005%

Packing: 180 kg in steel drums and bulk quantities in tankers.

BUTYLACETATE

Butyl Acetate is a colourless inflammable liquid with a pleasant and fruity odour. It is widely used in cellulose nitrate lacquers. It is also an active solvent for cellulose acetate batryle, ethyl cellulose chlorinated rubber, polystyrene, methaerylate resins, natural gums and paints. This ester is also used as a solvent in the preparation of artificial leather, textile and plastics and as an extraction solvent in processing various oils and pharmaceuticals.

Technical Data

Content > 99.5% (weight%)
Density 0.897-0.902 am/ml

Moisture ≤0.20% Acidity (as CH3COOH) ≤0.005% Evaporation residue <0.005%

Packing: 180 kg in steel drums and bulk quantities in tankers.

NORMAL PROPYL ACETATE

Normal Propyl Acetate is a common solvent. This clear, colorless liquid is known by its characteristic odour of pears. Due to this fact, it is commonly used as a flavoring additive.



Industrial Chemicals

Polymers

UREA FORMALDEHYDE - KR 60

Application

Suitable for the production of ordinary Plywood/Chipboard.

Specifications

Appearance Opaque

 Viscosity
 200 – 300 cps at 25°C

 Density
 1.26–1.29 g/cc at 25°C

pH 8.0 – 8.5 at 25°C Free formaldehyde Below 1 %

Gel. Time 30-60 sec at 100°C

Solid content 60±1%

Shelf life Two months at 25°C

Packing: 30 liters is packed in plastic can and 200 liters in steel drum while bulk quantities

in MS tanker.

UREA FORMALDEHYDE - KR 50

Application

Suitable for the production of Chipboard.

Specifications

Appearance Opaque

Viscosity 40–80 cps at 25°C

Density 1.200-1.250 g/cc at 25°C

pH 8.0-8.5 at 25°C Free formaldehyde Below 1 %

Gel. Time 40-70 sec at 100°C

Solid content 50± 1 %

Shelf life Two months at 25°C

Packing: 30 liters is packed in plastic can and 200 liters in steel drum while bulk quantities

are in MS tanker.

www.wahnobel.com Wah Nobel Group of Companies 26 www.wahnobel.com Wah Nobel Group of Companies 25



Fast Moving Consumer Goods (FMCG) - Products List

Nobel Hand Sanitizer (Gel / Liquid) (Ethanol Based)

- WHO Approved Formulation
- . Kills 99.9% Germs Instantly
- No Skin Irritancy

Ingredients:

Ethanol 80%, Vitamin E, Glycerol, Hydrogen Peroxide & Distilled Water Packing:

120ml, 250ml, 500ml, 1L, 5L & 30L



(Hydrogen Peroxide / Chlorine Based)

- · For Disinfecting Offices, Rooms, Walkways, Surfaces etc.
- · No Chemicals Fumes
- · Alcohol / Bleach Free

Ingredients:

Hydrogen Peroxide / Chlorine, Stabilizer & Distilled Water Packing:

5L, 30L



Nobel Floor Cleaner

(Sodium Hydroxide Based)

- . For Disinfecting Floors / Surfaces
- · Keeps Floor Clean & Shine
- . Long Lasting Fragrance

Ingredients:

Sodium Hydroxide, Hypochlorite, Surfactant, Fragrance & Distilled Water

250ml, 500ml, 750ml



Nobel Toilet Cleaner (Hydrochloric Acid Based)

. For Disinfecting Toilet Bowls

- . Keeps Toilet Clean & Shine
- Long Lasting Fragrance

Ingredients:

Hydrochloric Acid, Shining Agent, Fragrance & Distilled Water



Nobel Phenyl

(Removes Dirt & Germs across Different Surfaces)

- · General Purpose Surface Cleaner
- Keeps Floor Sparkling Clean
- . Long Lasting Fragrance

Ingredients:

Turkey Red Oil, Alfox, Pine Oil & Distilled Water

Packing:

1L, 3L





FAST MOVING CONSUMER GOODS - FAMILY (Hygiene Products)

Wah Nobel Group of Companies

EXCELLENCE IS OUR ATTITUDE





BRIG (R) SHIRAZ ULLAH CHOUDHRY, SI(M) CHIEF EXECUTIVE 051-4535819 ce@wahnobel.com

SYED NASEEM RAZA

Advisor/Executive Director 051-4545243-46 Ext 301 nraza1950@gmail.com

SYED AZMAT HUSSAIN

SGM Marketing 0300-8204902 wncmkt@gmail.com 051-4535620

GOHAR ALAM

GM Marketing 0300-8568692 wnxmktg@wahnobel.com 051-4534002

LT COL. (R) AMER BASHIR

GM Admin & Logistics 0300-9745312 adminwng@wahnobel.com

TANVEER ELAHI

Company Secretary/CFO 051-4545243-46 Ext 251 elahitanveer@hotmail.com

SYED TAHSEEN JAVED SHAH

DGM Supply Chain 0300-8560796 tahseen@wahnobel.com 051-4545240

QUAID AHMED FAROOQI

GM Accounts 0333-3337786 quaid_aca@hotmail.com

ARSALAN YOUNUS

AM Business Development 0333-5759484 bd@wahnobel.com 051-4545242