

Product Details

MMA (Methyl Methacrylate) Gujmer

GUJMET (Methacrylic Acid) a colourless liquid with a pungent odour. A highly corrosive acid which can cause serious burns of the skin and eyes.

Specifications –

Chemical Formula	CH ₃ =C(CH ₃)COOCH ₃
Colour (APHA)	10 max.
Specific Gravity @ 20°C	0.942 To 0.946
Acidity (as methacrylic acid)5	0.005 Max.
Purity % (G.C. Method)	99.6 Min.
Water (by Karl fisher)%	0.05 Max.
Inhibitor HQ	35 ppm

Application -

- Semi-finished products like rods, tubes and sheets
- Moulding and extrusion resins
- Dental Prosthesis
- Paints , Adhesives , Lacquers, Enamels and water proofing agent.
- Textile Auxiliaries and sizing materials
- Leather finishing resins
- Polymer impregnated concrete
- PVC modifiers
- Additive for lubricating and industrial oils

Packing -

90 Kg. HM-HDPE Barrels



Product Details

MAA (GUJMET Methacrylic Acid)

GUJMET (Methacrylic Acid) a colourless liquid with a pungent odour. A highly corrosive acid which can cause serious burns of the skin and eyes.

SPECIFICATIONS :-

Chemical Formula	$\text{CH}_3=\text{C}(\text{CH}_3)\text{COOCH}_3$
Molecular Weight	86.1
Colour (APHA)	25 Max
Specific gravity at 20oC	1.012–1.018
Purity (by titration)	99.0 Min.
Water (by Karl Fisher) %	0.3% Max.
Freezing Point(760 mm Hg)	14°C
Boiling Point (760 mm Hg)	160°C with slight polymerziation
Refractive index (nd 20)	1.4288
Inhibitor HQ/MeHQ	100/250 ppm

Application -

- Semi-finished products like rods, tubes and sheets
- Leather technology - Binder, tanning agent
- Ion-exchange resins - Water treatment
- Cosmetics -Thickening agent, Suspending agent, flocculating agent.
- Oil-well Drilling -Drilling-mud additive, anti-caking agent.
- Industrial-waste treatments - Suspending agent,
- Paper Industry - Filler-retention aid.
- Transportation - Skid-proof tyres.
- Rubber technology - Creaming of latex.
- Agriculture - Soil conditioners.
- Others - Coating, adhesive.

Packing -

90 Kg. HM-HDPE Barrels



Product Details

GUJPOL Methyl Methyacrylate(pellets)

GUJPOL-P is the registered trade mark of Acrylic Moulding Pellets.
GUJPOL-P is Polymethyl Methacrylate thermoplastic in form of pellets
(it is also available in bead form-minute spherical beads)

Specifications :

Typical Properties of Gujpol-P Pellets

Properties	Method ASTM	Unit	876 G	932 HR	1001 HH
Specific Gravity	D-792	-	1.19	1.19	1.19
OPTICAL					
Total Light Transmittance	D-1003	%	91	91	91
Refractive index nD	D-542	-	1.49	1.49	1.49
THERMAL					
Health Distortion Temperature	D-648	°C	87	93	100
Flow Temperature	D-569	°C	152	163	172
Melt Flow Rate (MFI)	D-1238	g/10min	6	2.2	1.4
MECHANICAL					
Tensile Strength	D-638	kg/cm2	650	700	730
Elongation at Rupture	D-638	%	3	3	3
Modulus of Elasticity	D-638	kg/cm2	3x104	3x104	3x104
Compressive strength of yield	D-638	kg/cm2	1000	1000	1000
Impact Strength Izod milled notch	D-256	kgcmf/cm	1.6	1.6	1.6
Rockwell hardness	D-785	-	M90	M95	M100
ELECTRICAL					
Di-electric strength	D-149	kV /mm	20	20	20
Volume Resistivity	D-257	ohm.cm	>1015	>1015	>1015
MISCELLANEOUS					
Water absorption	D-570	%	0.3	0.3	0.3
Inflammability (Burning Rate)	ASTMG	mm/min.	25	26	26



Application -

- Automobiles Tail lamps, lenses, dash board, crystals instrument covers tec.
- Optical Camera viewing lenses, personal lenses, magnifying lenses & goggles.
- Electric / Electronic Appliances Radiodials , Audio- video windows and channel covers and mixi/juicer jars and bowls, microware oven doors etc.
- General Gift and novelty items etc.
- Light absorption; Minimum in clear transparent sheets.

The outstanding characteristics of Gujpol-P are

- Crystal clear transparency.
- Distinctive resistance to ageing and outdoor weathering.
- Attractive gloss both in colourless and coloured articles.
- Excellent resistance to impact, dimensional change, heat and most chemicals.
- Absence of odour and taste.
- Easy and accurate mouldability even for complex shapes.

Packing -

Packed in 25kg. air tight bags with thick LDPE lines.

Product Details

Polymethyl Methacrylate (Sheet) GUJPOL-S (PMMA)

GUJPOL-S is the trade name of Acrylic sheets manufactured by GSFC. GUJPOL-S sheets are manufactured from virgin MMA by cell casting process the best optical properties among all transparent plastics. GUJPOL-S has an excellent resistance to the effect of long exposure to sunlight, heat and weather

Specifications -

Typical Average Properties of GUJPOL-S (3 mm thick clear transparent sheet)		
Properties	Method (ASTM)	Value
Specific Gravity	D-792-64T	1.18-1.20
Light Transmittance total	D-1003-61	92%
Refractive index nD	D-542	1.49
Tensile strength at rupture	D-638-64T	570-760 kg/cm2
Elongation at rupture	D-638-64T	2-7 %
Compressive strength at yield	D-695-63T	1260 kg/cm2
Impact strength (charpy unnotched)	D-256-56	16 - 20 kg/cm2
Rockwell hardness	D-785-62	M 100
Heat forming temperature		140-180°C
Heat distortion temp 2°C/min. at 264 p.s.i.	D-648-56	100°C
Maximum recommended continuous service temperature		85°C
Volume resistivity	D-257-61	>1015 ohm-cm
Burning rate (flammability)	D-635-63	30 mm/min
Water absorption	D-570-63	0.3%
Residual monomer (Wt %)		2.0 max.

Application -

- Light fitting and fixtures
- Street light covers
- Sanitary articles
- Sign-boards and novelties
- Helicopter canopies and other defence items

The outstanding features of Gujpol-S sheets are

- Light in weight; It has only half the weight of glass.
- Weather resistance; Longer period of resistance to sunlight and other weather conditions.
- Light absorption; Minimum in clear transparent sheets.
- Wide range; Transparent, translucent and opaque colours.
- High surface gloss.
- Easy formability and machinability.
- Low thermal conductivity; Almost equivalent to phenolics and only one sixth that of glass.

Packing -

GUJPOL-S well masked with craft paper on both side and packed in standard packing in thick corrugated paper and bundled with straps.



Product Details

GUJPOL-DP - A Versatile Acrylic Resin

Gujpol -DP is an acrylic resin in bead form manufactured with basic purest raw materials in our plant erected with Japanese technology. Produces crystal clear end product, does not have any self tint. when mixed with any other polymers. monomers or solutions - does not impart any colour to the finished product.

Outstanding Characteristics

Produces crystal clear end product, does not have any self tint. When mixed with any other polymers. monomers or solutions - does not impart any colour to the finished product.

Outstanding weather resistance characteristics imparts better weather resistance and long life to the products made by incorporating Gujpol-DP.

Combination of mechanical properties, better thermal and chemical properties enhances the relative properties of end products in which Gujpol-DP is used.

Specification (GUJPOL - DP 876)

Chemical Structure	Polymethyl Methacrylate
Bulk Density	600 Kg.m
Specific Gravity of dried film	1.19
Residual moisture content	0.5 (dry basis)
Average molecular weight 876 -G	95,000 - 1,06,000 /-
Residual monomer content	1.0 % max

Particle Size

16 mesh on	0.2%
32 mesh on	2 - 4 %
60 mesh on	36 - 64 %
90 mesh on	32 - 58 %
80 pass	0 - 2%

Packing : 25 Kg Laminated paper bags and inside LDPE liner

Gujpol-DP powders are soluble in aromatic hydrocarbons retones, esters, etc. The Common solvents 9Te ethyl acetate, ethylene, (dichloride, trichloroethylene,> chloroform, toluene, chlbenzene, toluene, ch1orobenzene, isopropanol, carbon tetrachloride cyclohexane, acitic acid, methyl isobutyrate PM Acetate, Butanol, Ethanol, Diacetone Alco- hol, etc., Normally more than one solvents 3l"e used in order to control solid content (concentration) dissolution rate. evaporation rate, flash points and cost of resultant solu- tion.

Also there are number of coating applications when the optimum combination ot: hardness and extensibility may be achieved by use of external plasticizers. The common plasticizers for acrylic resins are :

Butyl benzyl phthalate. Dibutyl Phthalate. Dicyclo hexyl Phthalate. 2-ethyllli:xyl benxyl phthlate, Diallyl phthalate, Dibenzyl phthB1ate, Butyl cyclo 'to hexyl phthalate, di (methylcyclobexyl) phthalate, di (butyl carbital) phthalate, Hexamethylene bis (2-ethylhexyl) phthalate, Dibenzyl sebacate, Triphenyl phosphate, Tricresyl phosphate, Toluene ethyl sulfomamiw, Mixed benzonc, Fatty oil acid esters of pentaerythritol, Poly (propylene adipate) dibenzote. Diethylene glycol dibenzonatge, Tetrabutyl thi odisucci nate, Butyl phthalate butyl glycolate, Acetyl tributyl citrate.

Dissolution Procedure

All the precautions necessary while handling solvents should be adhered to while dissolving Gujpol-DP in solvent (s). Gujpol-DP dissolves in solvents at room temperature but require constant agitation to prevent Solvent swollen granules of polymer forming agglomerates and sticking to the walls of the vessel. Sometimes heating (indirect) cut down the time required for dissolution. Generally 15 -30% solutions are prepared Use of jacketted vessel is recommended when heating is to be used for reducing dissolution time. If required, indirect heating is applied so as to maintain temperature around 50 C. Stirring should continue until a clear solution forms. Any cloudiness or residue may indicate that some polymer remains un dissolved The presence of water in the system can also cause cloudiness.

Application -

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- Optical Camera viewing lenses, personal lenses, magnifying lenses & goggles.
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- General Gift and novelty items etc.
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- Easy and accurate mouldability even for complex shapes.

Packing -

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