



Technical Literature & Product Specification of

CHLOROPLAST (CHLORINATED PARAFFIN) –HNP BASE

INTRODUCTION

CHLOROPLAST is manufactured by chlorination of paraffin hydrocarbons of varying carbon chain lengths under carefully controlled conditions. Several grades are available to suit individual requirement. These grades differ in chlorine content, viscosity and specific gravity. The normal grades manufactured are **CHLOROPLAST 40, 45, 52, 58, 65, and 70**, where figures represent the percentage of chlorine. All grades of **CHLOROPLAST** are suitably stabilized to withstand the normal temperature, storage, etc.

Grades - CHLOROPLAST	40	45	52	58	65	70-L
Appearance	Pale Yellow					
Chlorine content % w/w	40 - 43	43 - 45	49 - 52	56 - 58	63 - 65	68 - 70
Specific Gravity @ 25°C	1.14 - 1.16	1.17 - 1.19	1.26 - 1.28	1.35 - 1.37	1.42 - 1.46	1.55 - 1.58
Viscosity in Poises @ 25°C	0.2 - 2.0	2.0 - 4.0	11 - 20	500 - 700	300 - 500	3000 - 5000
Thermal Stability (Max)	0.15	0.15	0.15	0.15	0.20	0.20
Packing (in kgs)	225	225	250	250	250	250

PACKING AND STORAGE

CHLOROPLAST can be stored for extended periods at normal temperature without any substantial impairment of quality. Higher temperature and the effects of moisture and dust (iron,rust) can lead to decomposition and reduction in the colour quality on extended storage. Extended exposure to solar radiation should at all costs be avoided.

PROPERTIES:

CHLOROPLAST has low volatility, flame retardance compatibility with fillers and pigments, emulsifiability, clear appearance and low inherent color. It is non toxic and is recommended for applications coming in contact with foodstuff.

PVC COMPOUNDING: CHLOROPLAST has low volatility, flame retardance compatibility with fillers and pigments, emulsifiability,clear appearance and low inherent color.

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PAINT INDUSTRY: CHLOROPLAST-52 as well as **CHLOROPLAST-58** can be used as plasticizer for flexibility and plasticizing additives to compatible binders and resins in the manufacture of paints and other coating compositions. Its use is economic and makes possible to achieve specialised properties. Compatibility of a combination of bonding agents or resins with **CHLOROPLAST** is achieved if they are miscible and the **CHLOROPLAST** exhibits no noticeable sweating tendency (SURFACE STICKINESS) in the proportions used. Good results are obtained with soluble vinyl chloride-butadiene copolymers, cellulose derivatives, alkyed resins, polyvinyl acetals and acetals and acetates, agents and resins. **CHLOROPLAST** is compatible with majority of the common plasticizers. It can often be used to replace other conventional plasticizers, like DOP,DBP, etc.

RUBBER INDUSTRY;CHLOROPLAST is used in the Rubber Industry as a fire retardant additive as well as a replacement of DOP in Nitrile Rubber compounds. In mining, as well as in shipbuilding and aircraft constructions, the rubber goods are required to be flame-retardant and **CHLOROPLAST** plays an important role. **CHLOROPLAST** can also be used in conjunction with Antimony Trioxide or Aluminium Hydroxide in order to obtain improve antifiame properties. As a flame retradant, **CHLOROPLAST-70-L** is recommended, whilst as a plasticizer **CHLOROPLAST 52** is excellent. It is also used as a process oil for Neoprene.

LEATHER INDUSTRY:

CHLOROPLAST has an important role to play in leather fat liquor preparation. It acts as a lubricant that confers a full, supple handle and good tensile and tear strengths on th leather after tanning. Fats such as fish and whale oil, hardened linseed oil, castor oil, aerated colza oil, cotton seed oil etc. which are commonly used for the manufactured of Fat Liquor, have the disadvantage that they become resinous and hence lose their effectiveness. Further, the waterproofing and flexing resistance of such additives is less than that with **CHLOROPLAST**. Leather fat liquors are used exclusively as emulsions, which enable the plasticizer to be absorbed on to the leather as a Dispersion. **CHLOROPLAST** is used as 10-30% emulsions. For fat liquors, a special grade of **CHLOROPLAST-40** is recommended.

MINERAL OIL INDUSTRY:

CHLOROPLAST is among the best known extreme-pressure additives known today. They are added to mineral oil-based lubricants where there are high surface pressures with low rotational velocities outside the hydrodynamic lubricating area. Extreme pressure additives are added mainly to gear oils, cutting oils, and drawing die lubricants. The good abrasion reducing action of **CHLOROPLAST** rests on metal chloride formation on the metal surfaces involved. The shear strength of these chloride films is less than that of the metal, so that local welding and tearing of the metal surface are prevented. The quantity die oils. All grades of **CHLOROPLAST** viz. **40, 45, 52, 62 and 70-L** are suitable for adding to mineral oil based lubricants. However, **CHLOROPLAST 52** is preferred for cutting and drawing die oils and **40, 45** and **52** for gear oils. It may be necessary in particular cases to use **CHLOROPLAST** deviating from the standard grades with respect to their degree og chlorination, viscosity and heat stability properties. In such cases, we can develop the special grades against specific enquiries.

TEXTILE INDUSTRY:

CHLOROPLAST having a chlorine content of 70% is a constituent of many impregnating agents for frame-proofing textiles. Impregnating agents of this type mostly contain aminoplast resins, to which antimony trioxide, trichloro-ethyl phosphate, dicyandiamide,monoammonium phosphate,etc. are added as flame proofing agents.

SEALANTS:

Polysulphide Sealants are based on liquid-Polysulphide polymers. The commonly used plosticizer for this type of sealant is **CHLOROPLAST 52, 58,or 65** whilst all the grades are compatible with polysulphide polymers, from the experience it has been found that the mosy economical grade is **CHLOROPLAST-58**.

Chlorinated paraffin – (wax base)

To comply with "REACH" standard, we are also making chlorinated paraffin wax from high quality paraffin wax with carbon chain above C-20. This enables our CPW is very much adhering to "REACH" standard and is free from Short and medium Chain chlorinated paraffin.

Chlorinated paraffin wax(Paraffin wax base)

Sl.no	parameters	CP 30	CP40
1	appearance	Pale Yellow Clear liquid	Pale yellow Viscous liquid
2	Specific gravity	1.07 ±0.02	1.12 ±0.02
3	Chlorine content in%	30±1	40±1
4	Free chlorine in %	0.0 2	0.02
5	Viscosity at 30°C Centipoise	270±100	900±100

These grades are very much suitable for making leather Fatliquor emulsions. It Can be used along with SCPW(Sulpho chlorinated paraffin) in the process of making Fatliquors. Some time it can also be used as such as lubricant.