

# Low Molecular Weight AC Polyethylene Wax

## **SANWAX – 171 P**

**(Similar to A-C Polyethylene 617-A\*)**

**Sanwax-171P** is compatible with all Synthetic and Natural Rubber, especially compatible with Halogenated Elastomers.

**Sanwax -171P** exhibits excellent compatibility with Tosoh CSM, (Chlorosulphonated Polyethylene) and EPDM as both have similar linear molecular structure and are of same family. Unlike normal paraffin wax, it has no oily ingredient and is chemically saturated. **Sanwax 171 P** does not bloom to spoil appearance of Rubber Products.

It is process aid, which increases extrusion rate and gives superior smooth finish in all rubber products.

**Applications:** Moulded & Extruded Products, Hoses, Power Cables, Tyre & Tubes, V-Belts & Conveyor Belts  
 Shoe Sole, Printing Rollers, Rubber Blankets, Rice Rollers, etc.

### **Advantages of using Sanwax 171 P in RUBBER**

1	Helps in filler dispersion – shorter mixing cycles, better physical properties.
2	Increases flow properties – higher extrusion rate – more output; smooth Surface Finish
3	Release Agent – eases de -molding, lowers molding defects. Mold surface also remains clean (nofouling). Compound does not stick to Mixers, Mills & Calenders.
4	Sanwax in molten state has viscosities approximately equal to those of paraffin waxes
5	No Blooming – unlike WAXES – Sanwax does not bloom – Green Compound or Cured Product appears good even after exposure to atmosphere/weather over long period of time.
6	Increases the ozone resistance, acts as an antioxidant, hence better ageing properties. This also prevents surface cracking and gives UV protection and longer service life.
7	Improves the flow properties of rubber compounds during injection molding of Pin or Socket assembly of plugging systems.
8	Reduces water absorption, resulting in better Insulation resistance and voltage stability.
9	Prevents sticking of cores in a multi core cables or sticking of cores with outer jacket which is a common problem, because Sanwax 171P reduces inherent tack (especially in the case of chlorinated polymers like CSP, PCP, CPE.). A valuable additive in CABLE insulation & sheeting
10	Reduces the shrinkage of rubber mixes and of vulcanized products
11	Reduces the frosting effect & heat build-up in Carbon loaded compounds
12	Helps high dispersability of pigments – specially recommended for Color Master Batch makers.

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EPDM/EPM	Reduces Viscosity of Highly Filler Loaded Compounds making them process able. Increases Extrusion Rate. Improves Mould Flow/Release. Does not affect Cure Rate or Physical Properties	4-6 phr
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## Technical Specifications of A.C - Polythylene Wax - Sanwax 171 P

Sr No	Parameter	Value
1	Color – Molten APHA (Gardner)	30
2	Viscosity mPa.s @ 140°C (Brookfield)	180
3	Softening Point °C ( ASTM E-28-58 T ring & ball method)	107
4	Penetration Hardness ( ASTM D 1321-61T – 100g,5s,25°C)	4.5
5	Acid Value	nil
6	Density g/cm <sup>3</sup> (ASTM D 792-60T)	0.92

Type of Rubber	Benefits Of Using Sanwax 171 P	Dosage
Polychloroprene/ Skyprene	Improves processing – easy mill release, better mould flow. Increases Extrusion Rate & gives smooth surface finish to Extrudate. Reduced Die Swell. Non Bleeding. Being Polymeric Process Aide – with low Melting Point & Viscosity values close to Waxes does not affect Cure Rate, Physical Properties	2-6 phr
EPDM/EPM	Reduces Viscosity of Highly Filler Loaded Compounds making them process able. Increases Extrusion Rate. Improves Mould Flow/Release. Does not affect Cure Rate or Physical Properties	4-6 phr
Nitrile (NBR)/ HNBR/PVC + NBR (NV)	Very effective process aide, compound sheeting faster & smoother. Reduces Nerve & Shrinkage contributing to better and faster Extrusion/Calendering. Lowers Viscosity there by Scorch Safety is better. Improves Mould Flow & Release	3-5 phr
SBR/PBR	Reduced Viscosity gives better Scorch safety. Improved Mould Flow/Release. The Non Blooming Characteristics leads to No Decrease in Green Tack or Adhesive qualities necessary for Roll Covering, Belting & Shoe Sole Applications. Improved Abrasion & Cut Growth Resistance.	2-5 phr
Hypalon/Tosoh CSM/ CPE	Shortened Mixing Cycle, Decreased Viscosity, Reduced Shrinkage & Scorch Sensitivity. Improved Mould Flow/Release, Abrasion & Crack Growth Resistance. Provides excellent handling characteristics during Mill & Calendar Operations. No effect on Color Shade of Vulcanizate	3-5 phr
FKM/ACM/AEM.ECO	Better mould flow & release with no change in Cure Rate. Improved surface quality of both Extruded & Moulded part. No negative effect on Original & Aged Properties, as well as Green Tack & Adhesion properties.	3-5 phr
Rubber Mixing Aide	Great improvement in Banbury mixing & Mill handling with smooth release of Green Stock. Reduces compound Viscosity there by Processing becomes easy & Extrusion Rate increases.	3-4 phr
Carbon Black Dispersing Agent	Greatly improves Carbon Black dispersion with subsequent increase in Tensile Strength & Hardness	
Tyre & Tube Application	Excellent Internal Lubricant for the compounds, facilitating Calendar Release. Improved surface smoothness of finished sheet . Does not interfere with building tack or Physical Properties. Modest increase in Air Holding Properties. Improved Extrusion characteristics (rate, finish, shrinkage). Improved dispersion of fillers, Zinc & Titanium Oxides. Better Mould release for Tread Designs. Reduced processing Temperatures at time of Mixing/Extrusion. Excellent Scorch Safety.	2-4 phr
Thermoplastic Rubber for Shoe Sole/ Auto Parts	Extremely efficient flow Aide- greatly assisting Injection at Low Pressure. Reduces tackiness of compound. Flow Marks can be eliminated. Reduction in “White Spots”. Cycle Time can be reduced. Permitting greater use of Radial Polymers for better Abrasion Properties. No interference with Adhesion or Lacquering. No negative effect on Physical Properties.	2-5 phr