

PLASTICIZER SELECTION GUIDE FOR PVC AUTOMOTIVE

APPLICATIONS

IMPORTANT PROPERTIES

Instrument Panels

Interior Trim, Molded Parts,
Horn Pad, Airbag

Plastisol Sealants

Migration Resistance

Low Volatility

Long-Term Permanence

UV Resistance

Low Fogging

Viscosity @ 25°C, cPs

ADDITIONAL LINKS:
PVC Brochure
Thermoplastic Modifiers

| POLYMERICS | | | | | | | | | | | | | |
|------------------|------------------------------|---|---|---|---|---|---|---|---|---|--|--------------------|--|
| PRODUCT NAME | CHEMISTRY | | | | | | | | | | | DESCRIPTION | |
| Paraplex® A-8000 | Adipate | • | • | • | | | | | | | | 1,000 | Low MW polymeric ester. Offers excellent low-temperature performance. A-8000 also has better permanence, volatility and migration resistance than monomeric plasticizers. Good general performance plasticizer. |
| Paraplex® A-8200 | Adipate | • | | | 3 | 2 | 3 | | | 2 | | 720 @ 80°C, cSt | Medium MW polymeric ester. Offers excellent extraction resistance to both polar and non-polar mediums while still offering good low-temperature properties for a polymeric plasticizer. The low-fogging characteristics make A-8200 ideal for use in automotive interiors. |
| Paraplex® A-8600 | Adipate | • | | • | 1 | 1 | 2 | 2 | 2 | | | 900 @ 80°C, cSt | Medium MW polymeric ester. Provides a permanent plasticizer with superior humidity and extraction resistance. Offers excellent resistance to migration as well as polar and non-polar fluids; well suited for use in PVC that is in contact with ABS, polystyrene and lacquers. |
| Paraplex® G-25 | Sebacate | | | • | 1 | | 1 | 1 | 1 | | | 10,000 @ 80°C, cSt | High MW plasticizer combines plasticizing permanence and excellent compatibility. Ultimate in durability, excellent resistance to extraction in gasoline, oils, detergents and soapy water. Freedom from migration into plastics, rubber, lacquers, alkyds and varnish. Excellent compatibility in PVC resins where no tack or exudation is evident, even when exposed to high temperatures and humidity. Outstanding retention of physical properties after prolonged service at elevated temperatures. |
| Paraplex® G-30 | Mixed Dibasic Acid Polyester | | | • | | | | | | | | 4,100 | Good water and humidity resistance. |
| Paraplex® G-40 | Adipate | | | • | | | | | | | | 4,100 @ 80°C, cSt | High MW permanent plasticizer offering excellent durability. G-40 has low volatility, excellent resistance to extraction by hydrocarbon solvents and freedom from migration. Well suited for PVC compounds that are in contact with rubber or rubber-based materials. |
| Paraplex® G-54 | Adipate | | | • | | • | | | | | | 45 @ 25°C, TBR | Medium MW polyester developed specifically as a permanent plasticizer in PVC with good high-humidity resistance at elevated temperatures. Well suited for PVC compounds in contact with lacquer, baked enamels, alkyd-type finishes, modified and unmodified polystyrene and rubber or rubber-based compounds. Excellent resistance to migration in rubber-based adhesives and is particularly useful for PVC electrical and surgical tape applications. Outstanding durability and non-fogging characteristics. |
| Paraplex® G-57 | Adipate | | | • | | • | | | 3 | 3 | | 63 @ 25°C, TBR | Medium MW plasticizer, provides a balance of the best properties of high and low MW plasticizers; that is, permanence and handling characteristics of a low MW plasticizer. Also, provides high-volume resistivity and dielectric strength in standard electrical formulations. In comparison with similar MW plasticizers, G-54 offers faster fluxing, higher tensile strength and greater elongation, as well as better resistance to polar and non-polar fluids, improved migration resistance and easier handling. |
| Plasthall® P-550 | Glutarate | | | • | | | | | | | | 32 @ 25°C, TBR | Excellent migration resistance for PVC and PVC foam. |
| Plasthall® P-670 | Adipate | • | | • | | | | | | | | 1,250 | Low MW plasticizer noted for its excellent efficiency, processing characteristics and low-temperature properties. Provides good permanence after exposure to humid conditions, soapy water and hexane. |
| Plasthall® CF | Mixed Acid Monomeric | | • | | | | | | | | | <100 | Low-temperature performance and low-fogging characteristics for interior automotive applications. |

1 - first choice
2 - second choice
3 - third choice

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|-----------------------|--|--------------------|----------------------|----------------|----------------------|---------------|-------------|
| Instrument Panels | Interior Trim, Molded Parts, Horn Pad, Airbag | Plastisol Sealants | Migration Resistance | Low Volatility | Long-Term Permanence | UV Resistance | Low Fogging |
| Viscosity @ 25°C, cPs | | | | | | | |

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|--------------|-----------|---|---|---|---|--|--|--|-------|--|
| PRODUCT NAME | CHEMISTRY | | | | | | | | | DESCRIPTION |
| Dioplex® 904 | Adipate | • | • | • | | | | | 3,300 | Combines excellent extraction resistance with good low-temperature performance. Good resistance to oil and grease. In humid environments, performs just as well as phthalates, of particular value for PVC plastisol applications. Excellent choice for wire and cable applications. |
| Dioplex® 925 | Adipate | • | • | • | 2 | | | | 1,750 | Low-viscosity polymeric plasticizer offering good heat stability, water resistance and permanence. Biodegradable (80.6%) according to OECD301B (requiring products to show > 60% biodegradation in 28 days). |

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