

Building-Block Chemicals

BIO-BASED SUCCINIC ACID IN RESINS FOR COATINGS

CREATING VALUE FOR THE RESINS & COATINGS INDUSTRY

Resins & Coatings Applications

Polyester polyols (PEPs) using BioAmber BIO-SA™ brand bio-based succinic acid offer an excellent alternative for full replacement of petroleum-derived adipic acid and partial replacement of aromatic petroleum-derived phthalic anhydride or isophthalic acid in a wide range of coating applications.



→ UNSATURATED POLYESTER Gel coat



VALUE PROPOSITION

- Gloss
- Good tensile strength & elongation at break
- Better HDT & durability
- Less yellowing

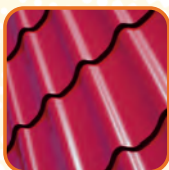
POSSIBLE COMBINATIONS

BIO-SA™ brand +
IPA + MA + NPG + PG

ROLE

Replacement of
adipic acid and
full/partial
replacement of
isophthalic acid

→ SATURATED POLYESTER Coil



VALUE PROPOSITION

- Hardness & flexibility
- Impact resistance
- Durability & chemical resistance
- Less yellowing

POSSIBLE COMBINATIONS

BIO-SA™ brand +
IPA + NPG + EG

ROLE

Replacement of
adipic acid and
partial replacement of
isophthalic acid

IPA = isophthalic acid
MA = malic anhydride

NPG = neopentyl glycol
PG = 1, 2 propylene glycol

PDO = 1, 3 propane diol
BDO = 1, 4 butane diol

HDO = 1, 6 hexane diol
TOFA = tall oil fatty acid

Penta = pentaerythritol
BA = benzoic acid



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BIO-BASED SUCCINIC ACID IN RESINS FOR COATINGS



<p>→ POLYURETHANE (PU) Synthetic leather</p> 	<p>VALUE PROPOSITION</p> <ul style="list-style-type: none"> • Softness • Tear resistance • Abrasion and solvent resistance • Bio content 	<p>POSSIBLE COMBINATIONS</p> <p>BIO-SA™ succinate polyols with</p> <ul style="list-style-type: none"> • BioPDO • BioPDO/BDO • Mixtures with adipates 	<p>ROLE</p> <p>Replacement of adipic acid and modified combinations of glycols</p>
<p>→ POLYURETHANE (PU) Coating</p> 	<p>VALUE PROPOSITION</p> <ul style="list-style-type: none"> • Hardness • Abrasion and solvent resistance • Good adhesion • Bio content 	<p>POSSIBLE COMBINATIONS</p> <p>BIO-SA™ succinate polyols with</p> <ul style="list-style-type: none"> • BioHDO • BioPDO • BioPDO/HDO 	<p>ROLE</p> <p>Replacement of adipic acid and modified combinations of glycols</p>
<p>→ ALKYD RESINS Wood & deco</p> 	<p>VALUE PROPOSITION</p> <ul style="list-style-type: none"> • Gloss • Durability & less yellowing • Abrasion resistance • Bio content 	<p>POSSIBLE COMBINATIONS</p> <p>BIO-SA™ brand +</p> <p>PA + BA</p> <p>TOFA + Penta</p>	<p>ROLE</p> <p>Replacement of adipic acid and partial replacement of phthalic anhydride</p>

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