

# DMPA<sup>®</sup> Polymeric Polyols

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## DATA SUMMARY

DMPA<sup>®</sup> Polymeric Polyols are designed to meet the need for high performance raw materials that can be used in environment friendly resin systems.

Our unique polymeric polyols can be formulated into a variety of VOC compliant coatings with excellent adhesion, chemical resistance and pigment dispersing ability.

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Polymeric Polyol	Product Description
DMPA <sup>®</sup> Polyol HA-0135	Acid functional DMPA <sup>®</sup> polyester polyol
DMPA <sup>®</sup> Polyol HA-0135LV2	Low viscosity acid functional DMPA <sup>®</sup> polyester polyol
DMPA <sup>®</sup> Polyol HC-0123	Vegetable oil dicyclopentadiene (DCPD) polyol
DMPA <sup>®</sup> Polyol BA-0132	Aromatic DMPA <sup>®</sup> polymeric polyol

Typical Properties	DMPA® Polyol HA-0135	DMPA® Polyol HA-0135LV2	DMPA® Polyol HC-0123	DMPA® Polyol BA-0132
Appearance	Clear / slightly hazy viscous liquid	Clear / slightly hazy viscous liquid	Amber resin	Clear solid resin
Acid Value mg KOH / g (as supplied)	100 - 115	80 - 95	5.0 max	10.0 max
Hydroxyl Number mg KOH / g (as supplied)	100 - 115	330 - 345	60 - 80	400 - 450
Non-volatile, %	98 min		98 min	98 min
Brookfield Viscosity	@ 55 °C 150-350 P 100% nvm	@ 25 °C 150-250 P 100% nvm	@ 25 °C 50-80 P 100% nvm	@ 25 °C 17-25 P 60% in PM acetate
Density @ 25 °C (grams / litre)	1200 - 1240	1140 - 1200	980 - 1020	N/A
Hydroxyl Equiv. Value (as supplied)	500	162 - 170	700 - 935	125 - 140
Colour, Gardner	2 max	2 max	12 max	3 max @ 60% nvm
Melt Point (DSC)	Liquid @ 25 °C	Liquid @ 25 °C	Liquid @ 25 °C	60 - 70 °C
Attributes	<ul style="list-style-type: none"> <li>• Contains both acid and hydroxyl functionality</li> <li>• Linear polyester with functionality in terminal position</li> <li>• Flexible polyester backbone</li> </ul>	<ul style="list-style-type: none"> <li>• Contains both acid and hydroxyl functionality</li> <li>• High concentration of hydroxyl groups giving increased coating hardness and chemical resistance</li> <li>• Low crystallinity for ease of handling at low temperatures</li> </ul>	<ul style="list-style-type: none"> <li>• Hydroxyl groups allow use in variety of applications including both solvent-borne and water-borne resins</li> <li>• Soluble in water miscible and low boiling aprotic solvents</li> </ul>	<ul style="list-style-type: none"> <li>• High concentration of primary hydroxyl groups in the terminal position</li> <li>• Versatile Bis-phenol A backbone</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Polyurethane Dispersions (PUDs)</li> <li>• Water-borne coating resins</li> <li>• Co-resin to improve adhesion, pigment dispersion</li> <li>• Esters for UV cure</li> <li>• Improve adhesion of baking enamels, 2K urethanes</li> </ul>	<ul style="list-style-type: none"> <li>• Soft or hard Polyurethane Dispersions (PUDs)</li> <li>• Water-borne coating resins</li> <li>• Co-resin to improve adhesion, pigment dispersion</li> <li>• Esters for UV cure</li> <li>• Improves adhesion of baking enamels, 2K urethanes</li> <li>• Improves resin compatibility with TBAC in solvent-borne systems</li> </ul>	<ul style="list-style-type: none"> <li>• Direct to metal adhesion</li> <li>• Stain blocking wood primers</li> <li>• Pigment dispersing resins</li> <li>• Corrosion resistant coating</li> <li>• Polyurethane dispersions (PUD)</li> <li>• Improved hygrophobicity</li> </ul>	<ul style="list-style-type: none"> <li>• Powder coating resins</li> <li>• 2K urethanes</li> <li>• Epoxy modified alkyd dispersions</li> <li>• Vinyl esters</li> <li>• UV curable resins</li> <li>• Co-resin with polyesters, alkyds or acrylics to improve adhesion and corrosion resistance</li> </ul>

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