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### I N D E X

<a href="#">1. <b>BENASOL</b> Alkyd Resins SHORT-OIL</a> <a href="#">pag.2</a>	<a href="#">12. <b>ACRIBEN</b> Acrylic Resins HYDROXYLATED</a> <a href="#">pag.13</a>
<a href="#">2. <b>BENASOL</b> Alkyd Resins MEDIUM-OIL</a> <a href="#">pag.3</a>	<a href="#">13. <b>HARTBEN</b> POLYISOCYANATES</a> <a href="#">pag.14</a>
<a href="#">3. <b>BENASOL</b> Alkyd Resins LONG-OIL</a> <a href="#">pag.4</a>	<a href="#">14. <b>EPOBEN</b> EPOXY ESTERS</a> <a href="#">pag.15</a>
<a href="#">4. <b>BENASOL</b> Alkyd Resins HYDROXYLATED</a> <a href="#">pag.5</a>	<a href="#">15. <b>IDROBEN</b> WATER DILUTABLE RESINS</a> <a href="#">pag.16</a>
<a href="#">5. <b>BENASOL</b> Alkyd Resins HYDROXYLATED</a> <a href="#">pag.6</a>	<a href="#">16. <b>IDROBEN</b> WATER DILUTABLE RESINS</a> <a href="#">pag.17</a>
<a href="#">6. <b>BENASOL UR</b> Oils and Resins URETHANE MODIFIED</a> <a href="#">pag.7</a>	<a href="#">17. <b>IDROBEN</b> WATER DILUTABLE RESINS</a> <a href="#">pag.18</a>
<a href="#">7. <b>BENESTER</b> SATURATED POLYESTERS</a> <a href="#">pag.8</a>	<a href="#">18. <b>IDROBEN</b> WATER DILUTABLE RESINS</a> <a href="#">pag.19</a>
<a href="#">8. <b>BENESTER</b> SATURATED POLYESTERS</a> <a href="#">pag.9</a>	<a href="#">19. <b>BENCRYL</b> EB-UV-CURING PRODUCTS</a> <a href="#">pag.20</a>
<a href="#">9. <b>BENESTER</b> SILICONE POLYESTERS</a> <a href="#">pag.10</a>	<a href="#">20. <b>BENALAC</b> Alkyd Resins for INKS</a> <a href="#">pag.21</a>
<a href="#">10. <b>BENESTER</b> UNSATURATED POLYESTERS</a> <a href="#">pag.11</a>	<a href="#">21. <b>BENASOL</b> THIXOTROPIC Alkyd Resins</a> <a href="#">pag.22</a>
<a href="#">11. <b>ISOBEN</b> HYDROXYLATED SATURATED POLYESTERS</a> <a href="#">pag.12</a>	<a href="#">22. <b>GENERAL</b> INFORMATION</a> <a href="#">pag.23</a>



<b>BENASOL - Alkyd Resins SHORT-OIL</b>												
<b>BENASOL</b>	<b>Oil type and Modification</b>	<b>Oil %</b>	<b>Solvent</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>A.V. Solids</b>	<b>Colour [G.H.] max.</b>	<b>Applications</b>				<b>Suggested uses</b>
								<b>Air</b>	<b>Bake</b>	<b>Nitro</b>	<b>Catalyz.</b>	
<b>AS 280</b>	Soya	28	XYLENE/ ISOBUTYL ACET.	60	Y-Z1	6-15	5	■	■	■	■	Fast air-drying and low-bake enamels with excellent chemical resistance.
<b>AS 379</b>	Special fatty acids	43	XYLENE	60	Z1-Z2	6-12	5	■				Fast air-drying white and coloured enamels for industrial applications.
<b>AS 3716</b>	Special fatty acids	<b>37</b>	BUTYL ACETATE	<b>75</b>	Z3-Z4	6-12	5	■				HIGH SOLIDS fast air-drying white and coloured enamels for industrial applications.
<b>CO 35</b>	Soya fatty acids	44	XYLENE	60	Z2-Z4	6-15	8	■				Very fast air-drying enamels for industrial applications and traffic-paints.
			XYLENE/ BUTYLACET.	65	Z2-Z3		4					
<b>CO 37</b>	Special fatty acids - Urethane Aliphatic	37	ISOBUTYL ACETATE	65	Z1-Z2	6-12	4	■				Very fast non-yellowing air-drying enamels for exterior, particularly for farm equipment.
<b>R 40D</b>	Dehydrated castor oil	40	XYLENE	60	Z-Z1	15-24	5	■	■			Non-yellowing air-drying and low-bake enamels with high mechanical performance.
<b>R 41D</b>	Dehydrated castor oil	41	XYLENE	60	Z1-Z2	6-15	6		■			Low-bake industrial enamels.
<b>3 V</b>	Linseed - Tung Phenolic	32	XYLENE	50	Y-Z1	15-24	8	■				Rust-inhibitive metal and non lifting primers for nitrocellulose laquers, for metals.
			XYLENE / ISOBUTYL ACET.	60	Z2-Z3							



<b>BENASOL - Alkyd Resins MEDIUM-OIL</b>												
<b>BENASOL</b>	<b>Oil type and Modifications</b>	<b>Oil %</b>	<b>Solvent</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>A.V. Solids</b>	<b>Colour [G.H.] max.</b>	<b>Applications</b>				<b>Suggested uses</b>
								<b>Air</b>	<b>Bake</b>	<b>Nitro</b>	<b>Catalyz.</b>	
<b>AS308</b>	Soya fatty acids	47	XYLENE XYLENE/W.S.	60 55	Z1-Z2 Z-Z2	6-12	6	■				Fast air-drying enamels for building and industrial applications, also combined with chlorinated rubber. Fast through-dry.
<b>AS446</b>	Soya fatty acids - Silicone Modified	44	SOLVESSO 100	60	Z2-Z3	6-12	6	■				Fast drying silicone modified alkyd for industrial and farm machinery enamels. Very good performances.
<b>AS451</b>	Special fatty acids	45	XYLENE	75	Y-Z1	6-15	6	■	■	■	■	Universal tinting-system vehicle having wide compatibility with resins and film-forming binders.
<b>FL40</b>	Special fatty acids	48	WHITE SPIRIT	40	Z2-Z3	6-15	6	■				Slightly thixotropic resin for architectural sealers, high quality non-yellowing mat finishes, also for "do-it-yourself".
<b>L50</b>	Linseed	49	WHITE SPIRIT	50	Z1-Z3	6-16	7	■				Air-drying metal primers and general pourpose enamels.
<b>S50</b>	Soya	52	WHITE SPIRIT	50	Z1-Z3	6-15	7	■				Non-yellowing air-drying enamels for decorative and industrial maintenance.
<b>SL58</b>	Soya Siliconized	53	WHITE SPIRIT	60	V-X	5-12	6	■				Siliconized paints with high degree of gloss, colour retention and outdoor resistance.
<b>5097</b>	Linseed - Tung Phenolic	42	XYLENE WHITE SPIRIT	60 50	U-W X-Z	6-15	9	■				Quick air-drying primers and enamels with excellent chemical and outdoor resistance.



<b>BENASOL - Alkyd Resins LONG-OIL</b>												
<b>BENASOL</b>	Oil type and Modification	Oil %	Solvent	Solids %	Visc. [G.H.]	A.V. Solids	Colour [G.H.] max.	Applications				<b>Suggested uses</b>
								Air	Bake	Nitro	Catalyz.	
<b>FX66</b>	Special unsaturated fatty acids	67	WHITE SPIRIT	70	Z1-Z2	6-10	3	■				High performance non-yellowing paints for interior and exterior, for building industry and "do-it-yourself". Very good colour retention also in the dark.
<b>HS 75</b>	Special unsaturated fatty acids	67	WHITE SPIRIT	75	Z1-Z2	5-8	4	■				High performance non-yellowing paints for interior and exterior, for building industry and "do-it-yourself", conforming <b>DECO paints CEPE 2004-42</b> .
<b>HS 86</b>	Special unsaturated fatty acids	66	WHITE SPIRIT	80	Z-Z2	12-18	4	■				High performance non-yellowing paints for interior and exterior, for building industry and "do-it-yourself", conforming <b>DECO paints CEPE 2004-42</b> .
<b>HS 71</b>	Special unsaturated fatty acids	72	WHITE SPIRIT	85	Z2-Z3	6 - 10	4	■				Low Viscosity Resin for white and coloured enamels for interior and exterior, for building industry and "do-it-yourself", conforming <b>DECO paints CEPE 2004-42</b> .
<b>L65</b>	Linseed	65	WHITE SPIRIT	70	Z1-Z3	6-15	7	■				Coloured enamels and rust-inhibiting air-drying primers for building industry and "do-it-yourself".
<b>S60</b>	Soya	62	WHITE SPIRIT	70	Z2-Z3	6-15	7	■				Architectural enamels for interior and exterior applications.
<b>LI 85</b>	Linseed	82	---	100	Z1-Z2	6-15	7	■				Grinding vehicle to produce tinting pastes and to improve gloss, flow and build-up of conventional paints.
<b>HS 750</b>	Special unsaturated fatty acids	73	---	100	Z1-Z3	6-10	4	■				High Solid resin for to reduce viscosity in enamels, conforming <b>DECO paints CEPE 2004-42</b> . Grinding vehicle to produce non Yellowing tinting pastes and to improve gloss, flow and build-up of conventional non yellowing paints.
<b>T68</b>	Talmoil	68	WHITE SPIRIT	75	Z-Z1	6-15	9	■				High-solids enamels for building industry. Clear finishes and impregnating vehicles for wood.
<b>1804</b>	Linseed - Tung Phenolic	68	WHITE SPIRIT	70	Z1-Z2	6-12	9	■				Anticorrosive primers, enamels and clear finishes with excellent resistance to marine corrosion.
<b>CHVP</b>	Fish	80	WHITE SPIRIT	80	Y-Z1	3-7	12	■				Wood-stain varnishes with very good impregnating characteristics, water-repellent, steam permeability.



**BENASEDO S.p.A.**

[index](#)

BENASOL - Alkyd Resins HYDROXYLATED - 1-													
BENASOL	Oil type and Modification	Oil %	Solvent	Solids %	Visc. [G.H.]	A.V. Solids	Colour [G.H.] max.	OH % Solids	Applications				Suggested uses
									Air	Bake	Nitro	Catalyz.	
<b>A 24</b>	Hydrogenated castor oil	44	XYLENE/ISOBUTYL ACETATE	60	Z-Z1	6-15	5	5.3-5.7			■	■	Urethane two-components non-lifting sealers and very hard mat finishes for wood.
<b>B1</b>	Vegetable fatty acids	30	XYLENE	50	X-Y	6-15	5	2.6-2.8			■	■	Urethane two-components mat finishes and sealers with high reactivity and easy sandability.
<b>C 300</b>	Coconut fatty acids	33	XYLENE	60	Z1-Z2	6-15	3	2.8-3.0		■	■	■	Non-yellowing baking enamels. Polyurethane finishes and nitrocellulose lacquers.
<b>E 114</b>	Synthetic fatty acids	25	XYLENE	75	Z3-Z5	6-15	3	5.4-5.6		■	■	■	Clear and pigmented finishes for metals and wood. Large compatibility with acrylics, polyesters, alkyds and film-forming vehicles. Universal tinting-systems.
<b>E 184</b>	Synthetic fatty acids	28	XYLENE	70	Z1-Z3	6-12	3	2.3-2.5		■	■	■	Non-yellowing nitrocellulose lacquers for automotive finishes. Bake and two-components polyurethane enamels.
<b>F 45</b>	Special fatty acids	32	XYLENE	75	Z2-Z3	6-15	5	3.3-3.5				■	High build-up polyurethane sealers and finishes for wood and floor varnishes.
<b>F 58</b>	Castor	38	XYLENE	60	U-W	17-27	5	4.5-4.7				■	Polyurethane clear and pigmented finishes and sealers for metals and wood. Very fast curing aliphatic polyisocyanate laquers.
<b>F 71</b>	Hydrogenated castor oil/ Vegetable fatty acids	41	XYLENE	60	Z1-Z2	15-20	4	4.4-4.6				■	Two-components polyurethane gloss or mat finishes, sealers, endowed with high transparence.



BENASOL - Alkyd Resins HYDROXYLATED - 2-													
BENASOL	Oil type and Modification	Oil %	Solvent	Solids %	Visc. [G.H.]	A.V. Solids	Colour [G.H.] max.	OH % Solids	Applications				Suggested uses
									Air	Bake	Nitro	Catalyz.	
<b>F 73</b>	Hydrogenated castor oil	43	XYLENE	60	Y-Z	15-23	4	4.5-4.7				■	High-quality clear and pigmented polyurethane finishes for wood.
<b>F 98</b>	12-Hydroxystearic acid	33	XYLENE	60	Y-Z1	6-12	3	4.5-4.7			■	■	Two-pack polyurethane finishes and sealers, endowed with fast curing and good surface hardness.
<b>ID 30</b>	12-Hydroxystearic acid	30	XYLENE / ISOBUTYL ACET.	60	X-Y	6-15	5	5.7-5.9				■	Polyurethane finishes with good hardness, mar-resistance and high-gloss also after polishing.
<b>K 660</b>	Non-drying fatty acids	41	XYLENE	70	X-Z	6-15	6	3.5-3.7			■	■	Plasticizer for nitrocellulose primers and lacquers for wood and metals.
<b>R 126</b>	Castor	53	XYLENE	60	X-Y	6-15	5	5.4-5.6			■	■	Polyurethane clear finishes and lacquers for wood and metals.
<b>R 127</b>	Castor	59	XYLENE	60	W-Y	6-15	5	5.2-5.4			■	■	Polyurethane high build-up clear finishes and lacquers endowed with good adhesion and flexibility for metals and wood.
<b>RC45</b>	Castor / Vegetable fatty acids	41	XYLENE	60	Z1-Z3	6-15	6	4.2-4.4		■	■	■	Excellent polyurethane sealers and mat finishes for wood. Nitrocellulose lacquers.
<b>RC 75</b>	Castor	78	XYLENE	80	X-Y	6-10	5	5.8-6.0			■	■	High-gloss polyurethane finishes and vehicle to improve the general performances of wood systems.
<b>RT 43</b>	Castor / Talloil	43	XYLENE	60	Z1-Z2	6-15	6	4.0-4.2				■	Vehicle to be used alone or combined with other BENASOL for polyurethane sealers or mat finishes, endowed with high-body and fast drying.
<b>T 35</b>	Talloil	35	XYLENE	50	Z1-Z3	6-15	5	4.5-4.7		■	■		General industrial baking enamels . Hammer bake coatings.



<b>BENASOL - Oils and Resins URETHANE MODIFIED</b>									
<b>BENASOL</b>	<b>Oil type</b>	<b>Oil %</b>	<b>Modification</b>	<b>Solvent</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>A.V. Solids</b>	<b>Colour [G.H.] max.</b>	<b>Suggested uses</b>
<b>UR 59 X</b>	Vegetable oils	56	Aromatic isocyanate	XYLENE	50	Z2-Z4	1-3	6	One-component sanding sealers and fast-drying mat finishes for wooden frames. Compatible with nitrocellulose and vinyl copolymers.
<b>UR 59 WS</b>	Vegetable oils	58	Aromatic isocyanate	WHITE SPIRIT	50	Z2-Z4	1-3	6	One-component air-drying glossy and flat finishes, suggested for floors, window and door frames.
<b>UR 60</b>	Vegetable oils	65	Aromatic isocyanate	WHITE SPIRIT	60	Z2-Z4	1-3	6	One-component fast-drying clear varnishes with good resistance to industrial and marine environment. Coatings for floors, wooden frames and "do-it-yourself".
<b>UR 61</b>	Soya fatty acids	60	Aromatic isocyanate	WHITE SPIRIT	<b>60</b>	Z1-Z3	1-3	<b>7</b>	Alkyd-urethane resin endowed with outdoor resistance, suggested to formulate clear or pigmented finishes for wood and metals.
<b>UR 64</b>	Soya fatty acids	61	Aromatic isocyanate	WHITE SPIRIT	55	X-Y	1-3	5	Alkyd-urethane resin endowed with outdoor resistance, suggested to formulate clear or pigmented finishes for wood and metals.
<b>UR 65</b>	Special fatty acids	58	Aliphatic isocyanate	WHITE SPIRIT	55	Z1-Z3	2-6	5	Non-yellowing varnishes and paints endowed with high-gloss retention, hardness and chalk-resistance.
<b>UR 81</b>	Linseed	100	Aromatic isocyanate		78	Z1 - Z3	0 - 1	<b>9</b>	Wood-stain varnishes with very good impregnating characteristics, water-repellent, steam permeability.
<b>UR 4984</b>	Safflower	65	Aliphatic isocyanate	WHITE SPIRIT	60	Z1-Z3	1-3	4	Non-yellowing clear and pigmented coatings with excellent properties of through-dry, hardness, adhesion, chemical and marine resistance. Premium quality finishes for yachts and "do-it-yourself".
<b>UR 6005</b>	Safflower	65	Aliphatic isocyanate	WHITE SPIRIT	70	Z1-Z3	1-3	4	Non-yellowing clear and pigmented coatings with excellent properties of through-dry, hardness, adhesion, chemical and marine resistance. Premium quality finishes for yachts and "do-it-yourself". conforming DECO paints CEPE 2004-42 .
<b>UR 6200</b>	Special unsaturated fatty acids	66	Aliphatic isocyanate	WHITE SPIRIT	75	Z1-Z3	1-3	4	Non-yellowing clear and pigmented coatings with excellent properties of through-dry, hardness, adhesion, chemical and marine resistance. Particularly suggested in clear and pigmented matt finishes Premium quality finishes for yachts and "do-it-yourself". conforming DECO paints CEPE 2004-42 .



<b>BENESTER - SATURATED POLYESTERS - 1-</b>								
<b>BENESTER</b>	<b>Type</b>	<b>Solvent</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>A.V. Solids</b>	<b>Colour [G.H.] max.</b>	<b>(OH) % Solids</b>	<b>Suggested uses</b>
<b>H 82</b>	Slightly branched	H.B. NAPHTA/ ESTERS	50	W-X	2-6	3	1.2-1.4	Fast baking cycles for coil-coating. Anticorrosive primers and high performance top-coats for interior.
<b>HS87</b>	High – solids Linear	METHYL ISOBUTYL KETONE/ BUTYLGLYCOL	80	Y-Z	6-12	3	2.4-2.6	Coil – coating primers and enamels having high – body, good adhesion and gloss.
<b>L 83</b>	Slightly branched	H.B. NAPHTA/ BUTYLGLYCOL/ M.P.A.	60	Z-Z1	2-6	3	1.0-1.2	Coil-coating enamels for interior/exterior, endowed with high flexibility, glossy, colour retention.
<b>PUR 054</b>	Self -curing Polyester	H.B. NAPHTA/ DBE	60	Z1 – Z2	3 - 6	<b>2</b>	/	Primers and enamels for industrial coatings, like domestic appliances, particularly coil coating with high post-formability and out-standing weather ability property.
<b>PZ 300</b>	Aliphatic - Linear	---	100	V-X	8-18	5	2.0-2.2	Plasticizer polymer for two-component polyurethane systems for metals. Plasticizer vehicle for can and coil-coating systems. Tinting pastes for plastics.
<b>138</b>	Slightly branched	H.B. NAPHTA/ BUTYLGLYCOL	60	Z-Z2	8-15	3	1.4-1.6	Over bake colour retention enamels for exterior of collapsible tubes, cans, spray-bottles, coil-coating systems.
<b>139</b>	Slightly branched	H.B. NAPHTA/ BUTYLGLYCOL	60	Z-Z1	3-8	3	1.4-1.6	Industrial baking enamels with very good characteristics of flow, adhesion and gloss. Clears and base-coatings for can-coating field.
<b>602</b>	Linear	H.B. NAPHTA/ M.P.A.	65	U-V	5-10	3	1.3-1.5	Low-cost bake sealers and top-coats, specially for coil-coating with higher solid contents.
<b>618</b>	Linear	H.B. NAPHTA/ ESTERS	50	Y - Z	1-3	3	1.3-1.5	High reactive baking enamels endowed with very good mechanical characteristics, adhesion on aluminium and galvanized steel, sterilization resistance. In combination with blocked polyisocyanates or amino resins for can and coil-coating enamels .





<b>BENESTER - SATURATED POLYESTERS -2-</b>								
<b>BENESTER</b>	<b>Type</b>	<b>Solvent</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>A.V. Solids</b>	<b>Colour [G.H.] max.</b>	<b>(OH) % Solids</b>	<b>Suggested uses</b>
<b>1051</b>	Slightly branched	H.B. NAPHTA/ BUTYLGLYCOL	70	X-Y	6-12	2	2.3-2.5	Hugh – yield coil – coating enamels with very good characteristics of build – up adhesion, flexibility and hardness.
<b>2580</b>	High aliphatic content	BLEND OF SOLVENTS	70	Y-Z	5-10	2	0.9-1,1	High – yield coil – coating enamels with very good characteristics and adhesion on metals without primer.
<b>4209</b>	Branched	XYLENE	70	Z2-Z3	8-14	3	2,1-2,3	Low-baking enamels (120°C) for industrial application. Good adhesion, flexibility, hardness and out-door resistance. Fully compatible with butylated and methylated melamine resins.
<b>4591</b>	Branched	H.B. NAPHTA/ BUTYLGLYCOL	60	X-Y	6-12	3	1.6-1.8	Oven-systems where post-formability is required, as in can or coil-coating applications.



<b>SILICONE MODIFIED RESINS</b>								
	Type	Solvent	Solids %	Visc. [G.H.]	A.V. Solids	Colour [G.H.] max.	(OH) % Solids	Suggested uses
<b>BENASOL SL - SILICONE ALKYDS</b>								
<b>SL 58</b>	Air drying medium oil Alkyd Silicone Modified	White spirit	60	V - X	4 - 10	6	---	High quality pigmented or clear finishes for industry, when is required brightness, good weatherability and chemical or marine resistance. Enamels , to be applied when resistances to temperature (180 – 220°C) is required.
<b>BENESTER SL - SILICONE POLYESTERS</b>								
<b>SL 74</b>	Silicone Modified Epoxy-Ester	H.B. NAPHTA/ M.P.A.	60	Z1-Z2	5 - 12	6	---	Heat resistant enamels endowed with characteristics of adhesion, hardness, very good moisture and salts resistances. Suggested for industrial applications (over 250°C).
<b>SL 250</b>	Silicone Polyester	H.B. NAPHTA/ M.P.A.	60	T-V	6 - 12	3	---	Coil-coating top coats, outdoor resistant. Flexibility, glossy and colour retention.
<b>SL 258</b>	Silicone Polyester	H.B. NAPHTA/ M.P.A.	60	W-Y	4 - 10	3	---	Heat resistant enamels endowed with flexibility, high glossy, outdoor durability and chemicals resistances. Suggested for industrial applications (over 250°C).
<b>SL 260</b>	Silicone Polyester	M.P.A. M.P.A. / P.M Iso BUTYL ACETATE	65 50	Z2 – Z3 F - I	8 - 20	3	---	Excellent resistance to medium / high temperatures enamels endowed with high glossy, outdoor durability and chemicals resistances. Suggested for industrial applications (over 250°C).
<b>SL 261</b>	Silicone Polyester	M.P.A.	55	U -W	8 - 20	2 mass.	---	Excellent resistance to medium / high temperatures enamels endowed with high glossy, outdoor durability and chemicals resistances. Suggested for industrial applications (over 250°C).



**BENASEDO S.p.A.**

[index](#)

<b>BENESTER - UNSATURATED POLYESTERS</b>						
<b>BENESTER</b>	<b>Solvent or Monomer</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>A.V. Solids</b>	<b>Colour [G.H.] max.</b>	<b>Suggested uses</b>
<b>LD 75 R</b>	STYRENE ISOBUTYL ACET.	75 80	X-Y Z1-Z3	24-36	3	Clear and pigmented sealers for wood, easy-sanding. Clear finishes endowed with good brightness and high hardness. Curing by U.V. or Redox. Tinting-pastes using Isobutyl Acetate version.
<b>LD 100</b>	STYRENE	75	W-Y	24-36	2	Clear and pigmented high gloss wood finishes. High-performance of brightness, hardness, body and mar-resistance. U.V. or Redox curing.
<b>LD 150</b>	STYRENE BUTYL ACET.	75 80	W-Y Z1-Z3	20-30	2	Clear and pigmented finishes for wood, U.V. or Redox curing. High reactivity with very good characteristics of build-up, flow, gloss, hardness and mar-resistance. Tinting-pastes using Butyl Acetate version.
<b>UV 730</b>	STYRENE	75	Z-Z2	12-20	3	Clear and pigmented sealers, putties for wood, by roller application and easy-sanding.
<b>G 21</b>	ISOBUTYL ACET.	80	Z2-Z4	24-36	2	Self-curing, styrene-free polyester for clear and pigmented sealers and finishes for wood furniture.
<b>P 70</b>	STYRENE	70	T-U	10-20	6	High-reactivity polyester, suggested to improve flexibility of others BENESTER in putties, gel-coats, varnishes for wood, curing by U.V. or Redox.
<b>PA 228</b>	STYRENE	65	O-T	5-15	6	Pre-primed semi-flexible polyester for car-repair putties or metals hardware. High-reactivity, good adhesion and easy-sandability.



BENASEDO S.p.A.

[index](#)

ISOBEN - HYDROXYLATED SATURATED POLYESTERS											
ISOBEN	Solvent	Solids %	Visc. [G.H.]	A.V. Solids	Colour [G.H.] max.	OH % Solids	Applications				Suggested uses
							Air	Bake	Nitro	Catalyz.	
IS. 5	M.P.A.	60	X-Y	2-6	3	8.0-8.2				■	High chemical resistant polyurethane coatings, suggested for building industry and maintenance.
IS. 6	BUTYL ACET.	70	Y-Z1	15-24	3	4.0-4.2			■	■	Polyurethane enamels for wood and metals. Marine and automotive industry coatings when high mechanical and durability resistances are required. Good compatibility with acrylic resins.
IS. 8	BUTYL ACET.	80	Y-Z1	2-6	3	8.6-8.8				■	Polyurethane enamels and clear finishes for wood, particularly suggested for floor varnishes, also combined with other ISOBEN. High-performance enamels for industry.
IS. 10	BUTYL ACET.	70	Z-Z2	12-22	3	2.5-2.7				■	Industrial polyurethane coatings, at low request of polyisocyanate hardener. Overprint varnishes. Fast curing. Good compatibility with acrylic resins.
IS. 12	---	100	Z5-Z6	2-6	3	5.9-6.1				■	Polyurethane wood coatings; particularly suggested for floor varnishes, when combined with other hydroxylated pure alkyds.
IS. 97	BUTYL ACET.	70	Z1-Z2	6-10	3	5.1-5.3				■	Clear and pigmented finishes for wood, endowed with build-up and hardness. Enamels for metals, interior/exterior.
IS. 108	BUTYL ACET.	80	Z3-Z5	12-18	3	2,9-3.1			■	■	HIGH SOLIDS industrial polyurethane coatings, at low request of polyisocyanate hardener. Fast curing. Good compatibility with acrylic resins.
IS. 168	BUTYL ACET.	80	Y-Z1	10-20	3	5.1-5.3			■	■	HIGH SOLIDS polyurethane enamels for wood and metals. Marine and automotive industry coatings when high mechanical and durability resistances are required. Good compatibility with acrylic resins.



<b>ACRIBEN - HYDROXYLATED ACRYLIC RESINS</b>											
<b>ACRIBEN</b>	<b>Solvent</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>A.V. Solids</b>	<b>Colour [HAZEN] max.</b>	<b>OH % Solids</b>	<b>Applications</b>				<b>Suggested uses</b>
							<b>Air</b>	<b>Bake</b>	<b>Nitro</b>	<b>Catalyz.</b>	
<b>RF 451</b>	XILENE M.P.A.	60	Z – Z2	//	<b>80</b>	4,1-4,3		■		■	ACRIBEN RF 451 is particularly suggested to formulate top coatings finishes endowed with gloss, hardness, chemical resistance and good weather ability.
<b>RF 453</b>	XILENE	60	Z – Z2	//	<b>80</b>	2,9-3,1		■		■	ACRIBEN RF 453 is particularly suggested to formulate clear and pigmented PUR-coatings with good hardness and chemical resistance, weather ability, anticorrosion properties and high gloss.
<b>RF 456</b>	BUTYL ACETATE	70	Z3 – Z5	//	<b>80</b>	4,3-4,5		■		■	ACRIBEN RF 456 is high-solid binder, PUR-coatings with high chemical resistance, weather ability, anticorrosion properties, high gloss and pigment loading.



<b>HARTBEN - Adducts and polyisocyanates POLYURETHANES</b>								
<b>HARTBEN</b>	<b>Type</b>	<b>Solvent</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>Colour [G.H.] max.</b>	<b>NCO %</b>	<b>Free monomer %</b>	<b>Suggested uses</b>
<b>SV 100</b>	Aromatic polyisocyanurate	BUTYL ACETATE	50	V-X	2	7.8-8.2	< 0.5	Very fast-curing sealers with easy hand or mechanical sandability, plasticizing by adding Hartben 75 P/ST.
<b>E 23</b>	Aromatic polyisocyanurate	BUTYL ACETATE	50	H-J	2	7.8-8.2	< 0.5	Fast-curing two-components sealers and finishes, by spray or curtain coating machine application, with good "pot-life" and lifting resistance. Wide compatibility with nitrocellulose.
<b>E 27</b>	Aromatic polyisocyanurate	BUTYL ACETATE	50	H-J	2	7.9-8.3	< 0.5	Polyurethane semi-gloss and mat finishes, for wood, endowed with excellent flexibility, build-up and hardness.
<b>501</b>	Aromatic polyisocyanurate	BUTYL ACETATE	50	K-M	2	8.4-8.6	< 0.5	Fast-curing sealers and mat finishes for wood, with long pot-life and very good flexibility.
<b>AM 29</b>	Aliphatic-aromatic polyisocyanurate	BUTYL ACETATE	60	O-R	2	10.4 - 10.8	< 0.5	Polyurethane coatings with good colour retention, gloss, toughness and hardness. Recommended for metals and wood.
<b>75 P/ST</b>	Aromatic adduct	ETHYL ACETATE	75	V-X	2	12.0 - 12.5	< 0.5	Two-components sealers and clear or pigmented finishes, for wood and industrial applications.
<b>A 75</b>	Aliphatic polyisocyanurate	XYLENE / M.P.A.	75	D-I	2	14.5 - 16.5	< 0.5	Two-components non-yellowing clear or pigmented finishes for wood and metals. High mechanical performances and durability.
<b>A 100</b>	Aliphatic polyisocyanurate	//	<b>100</b>	D-I	2	21.5 - 22.5	< 0.5	HIGH SOLIDS Two-components non-yellowing clear or pigmented finishes for wood and metals. High mechanical performances and durability.
<b>MC 53</b>	Moisture-curing aromatic prepolymer	XYLENE / M.P.A.	60	K-O	3	6.0-6.5	1 max.	One-pack glossy and mat lacquers for parquets and concrete floors.
<b>405</b>	Aromatic polymer	ETHYL ACETATE	80	K-N	2	---	---	Elastomeric polymer, plasticizer and adhesion promoter for nitrocellulose. Flexography inks for paper and plastic substrates.



**BENASEDO S.p.A.**

[index](#)

EPOBEN - EPOXY ESTERS												
EPOBEN	Fatty acid type	Oil %	Solvent	Solids %	Visc. [G.H.]	A.V. Solids	Colour [G.H.] max.	Applications				Suggested used
								Air	Bake	Nitro	Catalyz.	
<b>R 403</b>	Dehydrated castor oil	40	XYLENE	50	T-V	0.5-1.5	6	■	■			Air-drying and baking primers and enamels for industrial applications with excellent adhesion, alkali and solvent-resistant properties. Zinc-rich rust-inhibitive primers.
			SOLVESSO 100	60	Z3-Z5							
<b>C0 74</b>	12-Hydroxy-stearic acid	35	A.B. NAPHTA/ BUTYLGLYCOL	41	X-Z	0.5-1.5	5			■		Non-yellowing clear or pigmented baking finishes in combination with amino-resins. Excellent adhesion, post-formability and chemical resistance.



IDROBEN - WATER EMULSION RESINS -1-													
IDROBEN	Type and Modification	Oil %	Solvent	Solids %	Visc [Brookf.] m Pa.s	A.V. Solids	pH	Colour	Applications				Suggested uses
									Air	Bake	Nitro	Catalyz.	
130	Alkyd dispersion - Drying fatty acids	20	WATER	42	1500 3000	...	6.5-7.5	White milky		■		■	Industrial air- drying or bake enamels. Tinting pastes vehicle.
160	Alkyd dispersion - Special fatty acids	35	WATER	42	3000	...	7.3-7.8	White milky	■	■			Fast air-drying enamels for agricultural machinery,with high-body and gloss characteristics.
169	Alkyd dispersion - Special fatty acids	35	WATER	44	700 1300	...	7.3-7.8	White milky	■	■			Fast air-drying industrial finishes endowed with high characteristics of adhesion,high-body and gloss.
178	Alkyd dispersion - Special fatty acids	33	WATER	44	700 1300	...	7.3-7.8	White milky	■	■			Very fast air-drying industrial finishes endowed with good mechanicals characteristics.
180	Alkyd dispersion - Drying fatty acids	20	WATER	44	700 1000	...	7.0-8.0	White milky	■	■			Industrial anticorrosive primers,fast dryingl finishes with good adhesion and mechanical characteristics.
190	Alkyd dispersion - Soya	50	WATER	48	2300 3300	...	7.3-8.0	White milky	■				Primers and non-yellowing air-drying finishes,also combined with acrylic emulsions.





IDROBEN - WATER DISPERSION RESINS												
IDROBEN	Type and Modification	Oil %	Solvent	Solids %	Visc [Brookf.] m Pa.s	A.V. Solids	pH	Colour	Applications			Suggested uses
									Air	Bake	Catalyz.	
<b>PD 721</b>	Aliphatic Polyurethane dispersion Special fatty acids		WATER	40	50 350	...	7.5-8.0	White milky	■	■	■	Fast air-drying Decorative and Industrial finishes endowed with high characteristics of adhesion, high-body and gloss.
<b>PD 717</b>	Aliphatic Polyurethane dispersion Special fatty acids		WATER	40	700 1300	...	7.0-8.5	White milky	■	■		Very fast air-drying Decorative and Industrial finishes endowed with good mechanical characteristics.
<b>201</b>	Polyurethane dispersion	...	WATER	35	50 70	...	7.0-8.0	White translucent	■	■		Film-forming resin, very fast-drying, suggested for flexible sealers and finishes for wood, metals and plastics. No coalescent required.
<b>202</b>	Polyurethane acrylic dispersion	...	WATER	37	50 70	...	7.0-8.0	White translucent	■	■		Film-forming resin for sanding sealers and finishes for wood, metals and plastics. No coalescent required.
<b>205</b>	Aliphatic polyurethane dispersion	...	WATER	34	50 70	...	7.0-8.0	White translucent	■	■		Film-forming, fast-drying resin endowed with flexibility and surface hardness, mar and water resistances. Finishes for wood, metals and plastics. No coalescent required.



ACRIBEN - ACRYLIC EMULSION -3-												
IDROBEN	Type and Modification	Solvent	Solids %	Visc [Brookf.] m Pa.s	pH	MFT	TG	Colour	Density	Applications		Suggested uses
										Air	Bake	
<b>SA 338</b>	Self Cross-linking Acrylic Emulsion	WATER	38	< 500	7.5-8.5	15°C	39°C	Milky white		■	■	Fast drying clear and pigmented water based top-coats for furniture endowed with very good transparency, good chemical resistance. Non Yellowing.
<b>SA 437</b>	Self Cross-linking Acrylic Emulsion	WATER	37	< 250	8,0-9,0	10°C	19°C	Milky white		■	■	Fast drying clear and pigmented water based sealers for furniture endowed with very good sanding, good transparency. Non Yellowing.
<b>SA 5302</b>	Self Cross-linking Acrylic Emulsion	WATER	40	< 500	8,0-9,0	9°C	-	Milky white		■	■	Fast drying and fast blocking resistant coatings for Joinery, Suitable for indoor and outdoor in clear and opaque systems, endowed with high blocking and good early water resistance.
<b>4913</b>	Acrylic Emulsion - oil modified	WATER - BUTYL GLICOL	42	<250	8,0-8.5	0°C	-	Milky white		■	■	Clear and pigmented systems for Indoor and outdoor, endowed with high body and glossy, particularly suggested for wood stains with good impregnating characteristics. Finishes for wood and metals. No coalescent required.



IDROBEN - WATER-DILUTABLE RESINS - 4-													
IDROBEN	Type and Modification	Oil %	Solvent	Solids %	Visc. [G.H.]	A.V. Solids	pH	Colour [G.H.] max.	Applications				Suggested uses
									Air	Bake	Nitro	Catalyz.	
<b>AM 646</b>	Alkyd emulsion- Acrylic modified - Special fatty acids	46	WATER - BUTYL GLICOL	40	3000 - 5000	...	7.5-8.5	White translucent	■	■			Air drying, on yellowing water dilatable alkyd resin, acrylic modified. Particularly suggested for primers and fishes for industrial application.
<b>828</b>	Alkyd - Special fatty acids	30	BUTYLGLYCOL Sec.BUTANOL	75	Z4 -Z6	37-44	...	3	■	■			Non yellowing air – drying or baking enamels, with high – mechanical performances. Stowing undercoats and primers.
<b>878</b>	Epoxy ester - Dryng fatty acids	48	BUTYLGLYCOL Sec.BUTANOL	70	Z1-Z3 (60% BG)	45-55	...	5		■			Baking – curing primers or finishes with high characteristics of adhesion, flow and hardness.
<b>EP 5595</b>	Epoxy ester Acryl modified - Dryng fatty acids	38	BUTYLGLYCOL	68	Z-Z2	45-55	...	12	■	■			Fast Air and Baking – curing primers or finishes with high characteristics of adhesion, flow and hardness.
<b>1057</b>	Saturated Polyester	---	BUTYLGLYCOL	60	Y-Z	42-50	---	2			■		Water soluble tinting pastes systems. Clear or pigmented industrial baking coatings.
<b>1271</b>	Saturated polyester	---	BUTYLGLYCOL BUTANOL	70	Z3-Z4+	42-50	---	2			■		Bake enamels with very good properties of build – up, flow, gloss and hardness. Exterior base and top- coatings for tubes and cans. General purpose industrial enamels.
<b>2019</b>	Saturated polyester	---	WATER BUTYLGLYCOL	50	V-W	...	7.5-8.5	3			■		Low – voc, non – yellowing baking primers and finishes endowed with good properties of build – up, flexibility and adhesion.
<b>2026</b>	Saturated polyester	---	WATER	50	6300 - 14800	...	7,5-8.0	3			■		Zero – voc, non – yellowing baking industrial primers and enamels, with very good adhesion and high mechanical characteristics.
<b>5117</b>	Alkyd - Special fatty acids	38	WATER	80	Z7 -Z8	...	8,3 -8,8	4			■		Zero –voc, non yellowing baking enamels, with high – mechanical performances. Stowing top coats and primers.



**BENASEDO S.p.A.**

[index](#)

<b>BENCRYL UV- EB RADIATION CURING PRODUCTS</b>									
<b>BENCRYL</b>	<b>Type</b>	<b>Monomer</b>	<b>Theoretical Solids %</b>	<b>Viscosity mPa.s. - 25°C</b>	<b>A.V. Solids</b>	<b>OH% Solids</b>	<b>Functionality of prepolymer</b>	<b>Colour [G.H.] max.</b>	<b>Suggested uses</b>
<b>PU 134</b>	Urethane acrylated oligomer	HDDA	85	45000-55000	1 max.	---	3,0	2	Clear finishes endowed with good flexibility, durability and abrasion resistance, for wood, paper and plastic substrates.
<b>PE 150</b>	Unsaturated polyester	TPGDA	66	2000-4000	15-25	---	3,0	3	High gloss finishes for wood, endowed with high reactivity, build-up, flow and mar-resistance.



<b>BENALAC - Alkyd Resins for INKS</b>								
<b>BENALAC</b>	<b>Oil type</b>	<b>Oil %</b>	<b>Solvent</b>	<b>Solids %</b>	<b>Visc. [G.H.]</b>	<b>A.V. Solids</b>	<b>Colour [G.H.] max.</b>	<b>Suggested uses</b>
<b>S 740</b>	Soya	75	---	100	Z1-Z2	6-15	7	General purpose resinous vehicle for "off-set" inks. Tinting-pastes for air-drying coatings and inks.
<b>V 770</b>	Linseed	76	---	100	V-X	6-15	7	Low viscosity "off-set" inks. Good abrasion resistance.
<b>4852</b>	Linseed	67	---	100	Z7-Z8	6-12	8	Oleoresinous binders endowed with very good wetting power, hardness, gloss, setting and drying.
<b>4855</b>	Linseed	73	---	100	Z3-Z4	8-12	8	They are employed in the printing inks, off-set inks for flat bed or rotary machines, overprint varnishes and are characterized by excellent setting speed, rub resistance, sharp gloss, gloss retention and greater color strength.
<b>5191</b>	Safflower	78	---	100	Z6 (ab.)	8-15	7	Oleoresinous non-yellowing binder for lithographic inks, endowed with high gloss, pigment-wetting, setting speed, adhesion and toughness.



**BENASEDO S.p.A.**

[index](#)

<b>BENASOL – THIXOTROPIC ALKYDS RESINS</b>												
<b>BENASOL</b>	Fatty acid type	Oil %	Solvent	Solids %	Visc. [G.H.]	A.V. Solids	Colour [G.H.] max.	Applications				<b>Suggested used</b>
								Air	Bake	Nitro	Catalyz.	
<b>M 6153</b>	Special fatty acids	60	White spirits	40	Gel	4 -10	7	■				Soft-gel fast drying thixotropic alkyd resin, endowed with very good flow , body and color retention. Employed alone or combined with medium-long oil alkyd resins to formulate enamels, glossy paints or flat one-coat wall finishes, pigmented sealers for wood and “do it Your self”, applied by brush or roll.
<b>GEL 220</b>	Special fatty acids	55	White spirits	50	Gel	6 -15	9	■				



<b>GENERAL INFORMATION</b>	
<b>SOLIDS CONTENT</b> (according to BN1-Benasedo)	It is determined at 150°C for 15 minutes on a thermostatic hot plate. The precision of this value is +/- 1%.
<b>VISCOSITY</b> (according to ASTM D 1545) (according to ASTM D 2196)	It is expressed according to Gardner-Holdt scale letters, determined at 25°C. It is expressed according to Brookfield Viscosimeter, in mPa.s., at 25°C.
<b>ACID VALUE</b> (according to ASTM D 29)	It is expressed in mg of KOH per gram of solid resin.
<b>COLOUR</b> (according to ASTM D 1544)	It is expressed according to Gardner-Hellige Varnish Comparator.
<b>(OH) % CONTENT</b>	It is expressed in (OH) equivalent grams per 100 grams of solid resin.
<b>(NCO) % CONTENT</b> (according to ASTM D 1638)	It is expressed in (NCO) equivalent grams per 100 grams of polyisocyanate.
<b>FREE ISOCYANIC MONOMER</b>	It is expressed in parts per 100 gr of polyisocyanate, as is, and determined by G.P.C..
<b>FUNCTIONALITY OF RADIATION CURING PRODUCTS</b>	It means the number of acrylic double-bounds per mole.