



CARPENTER



HR FOAM



C.A.S.E.



FLEXIBLE FOAM.



RIGID FOAM

CHEMICALS DIVISION
POLYOLS-POLYURETHANES

PRODUCT GUIDE

Carpol® Diols

TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate	Hydroxyl	Approximate	Average pH	Water	Viscosity	Color	Density	Renewable	
		Functionality	Number	Molecular Weight		Content (Max)	at 25°C	APHA (Max)	at 25°C	Content	
			mg KOH/g	Da		%	cP		lb/gal	%	
PGP-400	Propylene Glycol, Propylene Oxide	2.0	264-299	400	7.0	0.02	75	35	8.30	-	
PGP-1000	Propylene Glycol, Propylene Oxide	2.0	107-117	1,000	7.0	0.02	150	35	8.28	-	
PGP-2000	Propylene Glycol, Propylene Oxide	2.0	54-57.5	2,000	7.0	0.02	300	35	8.33	-	
PGP-3000	Propylene Glycol, Propylene Oxide	2.0	35-39	3,000	7.0	0.02	600	35	8.47	-	
PGP-4000	Propylene Glycol, Propylene Oxide	2.0	26-30	4,000	7.0	0.02	890	35	8.33	-	
REACTIVE	PGP-2012	Propylene Glycol, Propylene Oxide, 12% Ethylene Oxide cap	2.0	54-58	2,000	7.0	0.04	317	35	8.33	-
	PGP-2740	Propylene Glycol, Propylene Oxide, 40% Ethylene Oxide cap	2.0	40-44	2,700	7.0	0.04	470	70	8.76	-
	PGP-2816	Propylene Glycol, Propylene Oxide, 16% Ethylene Oxide cap	2.0	38-42	2,800	7.0	0.04	500	35	8.76	-
	PGP-3815	Propylene Glycol, Propylene Oxide, 15% Ethylene Oxide cap	2.0	28-31	3,800	7.0	0.04	660	35	8.60	-
	PGP-4025	Propylene Glycol, Propylene Oxide, 25% Ethylene Oxide cap	2.0	26-30	4,000	7.0	0.04	1,000	35	8.60	-

All diols may be acidified to a nominal pH of 5 or 6 upon request

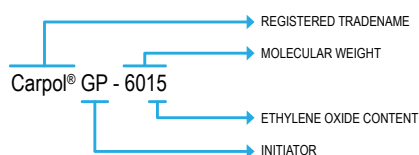
Carpol® Triols

TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate	Hydroxyl	Approximate	Average pH	Water	Viscosity	Color	Density	Renewable	
		Functionality	Number	Molecular Weight		Content (Max)	at 25°C	APHA (Max)	at 25°C	Content	
			mg KOH/g	Da		%	cP		lb/gal	%	
GP-700	Glycerin, Propylene Oxide	3.0	230-250	700	7.0	0.02	270	35	8.56	10-15	
GP-1000	Glycerin, Propylene Oxide	3.0	160-176	1,000	7.0	0.02	250	35	8.55	5-10	
GP-1500	Glycerin, Propylene Oxide	3.0	106-118	1,500	7.0	0.02	275	35	8.48	5-10	
GP-3000	Glycerin, Propylene Oxide	3.0	54-58	3,000	7.0	0.02	500	35	8.36	< 5	
GP-4000	Glycerin, Propylene Oxide	3.0	39-42	4,000	7.0	0.02	700	35	8.36	< 5	
GP-5000	Glycerin, Propylene Oxide	3.0	32-36	5,000	7.0	0.02	825	35	8.71	< 5	
GP-3008	Glycerin, Propylene Oxide, 8% Ethylene Oxide located internally	3.0	54-58	3,000	7.0	0.04	500	35	8.36	< 5	
GP-3510	Glycerin, Propylene Oxide, 10% Ethylene Oxide located internally	3.0	45.5-48.5	3,500	7.0	0.04	500	35	8.52	< 5	
REACTIVE	GP-725	Glycerin, Propylene Oxide, 25% Ethylene Oxide cap	3.0	230-250	700	7.0	0.04	250	35	8.36	10-15
	GP-4520	Glycerin, Propylene Oxide, 20% Ethylene Oxide cap	3.0	34.1-37.3	4,500	7.0	0.04	833	35	8.59	< 5
	GP-5015	Glycerin, Propylene Oxide, 15% Ethylene Oxide cap	3.0	32-36	5,000	7.0	0.04	840	35	8.43	< 5
	GP-5171	Glycerin, Propylene Oxide, 71% Ethylene Oxide	3.0	33-38	5,000	7.5	0.04	1,200	70	8.41	< 5
	GP-6015	Glycerin, Propylene Oxide, 15% Ethylene Oxide cap	3.0	26-30	6,000	7.0	0.04	1,100	35	8.44	< 5
	GP-6307	Glycerin, Propylene Oxide, 7% Ethylene Oxide	3.0	26-29	6,300	7.0	0.04	1,180	35	8.49	< 5
GSP-7216	Mixed Starter, Propylene Oxide, Ethylene Oxide Cap	4.0	30-33	7,200	7.0	0.06	1,250	35	8.60	< 5	

All triols may be acidified to a nominal pH of 5 or 6 upon request

Product Nomenclature



Product Nomenclature



PG Propylene Glycol
GP Glycerin
SPA Sucrose/Amine DEOA

TEAP Triethanol Amine
EDAP Ethylene Diamine
GSP Glycerin/Sucrose

MX Mannich (Phenol)
SP Sucrose
PES Polyester

Carpol® Amine Polyols

TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number	Approximate Molecular Weight	Average pH	Water Content (Max)	Viscosity at 25°C	Color Gardner (Max)	Density at 25°C	Renewable Content	Total Amine Value
		mg KOH/g	Da	%	cP	lb/gal	%	mg KOH/g			
SPA-357	Sucrose, Diethanol Amine, Propylene Oxide	5.5	335-365	880	10.3	0.08	2,500	12	8.99	10-15	49.0
SPA-530	Sucrose, Diethanol Amine, Propylene Oxide	5.5	520-540	580	11.0	0.08	11,000	12	9.16	20-25	70.0
TEAP-265	Triethanol Amine, Propylene Oxide	3.0	625-645	265	11.0	0.10	465	7	9.00	-	213.0
EDAP-770	Ethylene Diamine, Propylene Oxide	4.0	757-783	290	11.0	0.05	56,000	2	8.64	-	384.0
EDAP-800	Ethylene Diamine, Propylene Oxide, Ethylene Oxide	4.0	750-815	280	11.0	0.05	16,000	2	8.82	-	404.0

Carpol® Sucrose Polyols

TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number	Approximate Molecular Weight	Average pH	Water Content (Max)	Viscosity at 25°C	Color Gardner (Max)	Density at 25°C	Renewable Content	Total Amine Value
		mg KOH/g	Da	%	cP	lb/gal	%	mg KOH/g			
GSP-280	Glycerin, Sucrose, Propylene Oxide, Ethylene Oxide	7.0	270-290	1400	7.0	0.08	2,600	7	9.22	25-30	n/a
GSP-355	Glycerin, Sucrose, Propylene Oxide	4.5	350-370	800	7.0	0.08	3,700	7	9.11	25-30	n/a
GSP-370	Glycerin, Sucrose, Propylene Oxide	7.0	360-380	1,060	10.0	0.10	27,000	12	9.32	25-30	1.0
GSP-520	Glycerin, Sucrose, Propylene Oxide	5.0	510-530	540	10.0	0.10	34,000	12	9.08	25-30	2.0
SP-477	Sucrose, Propylene Oxide	5.0	450-490	600	7.0	0.10	33,000	7	9.42	25-30	1.0

Carpol® Mannich Polyols

TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number	Approximate Molecular Weight	Average pH	Water Content (Max)	Viscosity at 25°C	Color Gardner (Max)	Density at 25°C	Renewable Content	Total Amine Value
		mg KOH/g	Da	%	cP	lb/gal	%	mg KOH/g			
MX-425	Mannich Base, Propylene Oxide, 20% Ethylene Oxide cap	4.0	415-435	530	11.0	0.10	5,200	6	9.30	-	147.5
MX-470	Mannich Base, Propylene Oxide, 20% Ethylene Oxide cap	4.0	450-490	480	11.0	0.10	10,000	6	9.35	-	165.5

Carpol® Aromatic Polyester Polyols

TYPICAL PROPERTIES

PRODUCT NAME	COMPOSITION	Approximate Functionality	Hydroxyl Number	Approximate Equivalent Weight	Acid Value (Max)	Water Content (Max)	Viscosity at 25°C	Density at 25 °C	Aromatic Content	Recycled Content
		mg KOH/g	Da	mg KOH/g	%	cP	lb/gal	%	%	
PES-240	Aromatic Acid, Mixed Glycol	2.0	235-255	229.0	2.0	0.15	6,500	10.43	39.5	49
PES-265	Aromatic Acid, Mixed Glycol	2.3	255-275	211.7	2.0	0.10	9,500	10.43	37.5	44
PES-295	Aromatic Acid, Mixed Glycol	2.4	295-315	183.9	2.0	0.10	10,500	10.43	38.5	47
PES-305	Aromatic Acid, Mixed Glycol	2.2	290-310	187.0	1.5	0.15	5,000	10.35	35.8	43
PES-352	Aromatic Acid, Mixed Glycol	2.2	335-365	160.3	2.0	0.15	3,000	10.35	33.9	41



SAMPLES & INFORMATION

CUSTOMER SERVICE

800.260.5373

NORTH AMERICA

chemical.division@carpenter.com

OUTSIDE NORTH AMERICA

chemdivintl@carpenter.com

SAMPLE SIZE

1 Quart	2 LB	(~ 1 KG)
1 Gallon	8 LB	(~4 KG)
5 Gallons	40 LB	(~20 KG)

PRODUCTS PACKAGED/SHIPPED

Drum	460 LB	(~208 KG)
Totebin (IBC)	2300 LB	(1043 KG)
Tank Truck	~44400 LB	(~20 MT)
Flexitank	~44400 LB	(~20 MT)
Railcar	~185000 LB	(~84 MT)