AMOCO chemicals
Amoco Chemicals Corporation
Chemicals Marketing
1200 Harger Road
Oak Brook, Illinois 60521
312/654-3080

Mr. J. G. Bryant
Monsanto Company
800 N. Lindbergh Blvd.
St. Louis, Missouri 63166

Dear Mr. Bryant:

Please refer to your letter of December 14, 1970, concerning your interest in INDOPOL Polybutene for application in dielectric fluids.

This is to advise that AMOCO does not recommend INDOPOL Polybutene L-100 for electrical applications. We do, however, sell INDOPOL L-50E and INDOPOL H-15E for electrical applications. These products closely approximate the viscosity and molecular weight properties of L-100. The manufacturing specifications covering these products are attached. If you have any further questions, please do not hesitate to contact either Pete Musgrove or this office. If you desire any further information and/or samples, please let us know.

Very truly yours,

FRED K. NIEMAN
District Sales Manager

January 6, 1971

FKN/jn
Attachments

DSW 201749

"AMOCO" Used Under License From The American Oil Company, An Affiliate

INDOPOL POLYBUTENE H-15E

Test	Test Method	Min.	Max.
Viscosity, SSU	ASTM D446		
@ 100°F		3400	3850
@ 210°F		155	175
Viscosity, SSU, @ 210°F after heating 96 hrs. @ 239°F	ASTM D1934	0.9 x Int - 1.2 x Int.	
Power Factor, 100 tan , 60 cycles per second @ 212°F 20 V/M	ASTM D924		0.05 (1)
After heating 96 hrs. @ 239°F	ASTM D1934		.07
Water, ppm	ASTM D1533		45 (1)
Dielectric Strength @ 77°F, KV	ASTM D877	30	
Flash Point, COC, °F	ASTM D92	320	
Neutralization No., mg KOH/g	ASTM D864		0.03
after heating 96 hrs. @ 239°F	ASTM D1934		0.07
Sulfur, Wt. %	X-Ray Fluorescence		0.01
Sulfur, Free	ASTM D989	---	
Specific Gravity, 60/60°F	ASTM D1298	0.85	0.89
Bromine Number	SM-20-28		32
Molecular Weight	Mechrolab Osmometer	500	600
Organic Chlorides, as % Chlorine	SM-205-12		0.004
Inorganic Chlorides	ASTM D878	Nil	
Color, Gardner	ASTM D1544		2
Color, Initial	ASTM D1500	---	
after heating 96 hrs. @ 239°F	ASTM D1934	---	
Pour Point, °F			-10
Weight Loss @ 250 Microns hg			

DSW 201750

STLCOPCB4059817

INDOPOL POLYBUTENE L-50E

Test	Test Method	Value Min.	Value Max.
Viscosity, SSU	ASTM D446		
@ 100°F		500	620
@ 210°F		60	66
Viscosity, SSU, @ 210°F after heating 96 hours @ 239°F	ASTM D1934	0.9 x Int - 1.2 x Int.	
Power Factor, 100 tan , 60 cycles per second @ 212°F, 20 V/M	ASTM D924		0.05 (1)
after heating 96 hours @ 239°F	ASTM D1934		0.07
Water, ppm	ASTM D1533		30 (1)
Dielectric Strength @ 77°F, KV	ASTM D877	35	
Flash Point, COC, °F	ASTM D92	310	
Neutralization No., mg KOH/g	ASTM D664		0.02
after heating 96 hrs. @ 239°F	ASTM D1934		0.09
Sulfur, Wt. %	X-Ray Fluorescence		0.01
Sulfur, Free	ASTM D989	Nil	
Specific Gravity, 60/60°F	ASTM D1298	0.84	0.87
Bromine Number	SM-20-28		37
Molecular Weight	Mechrolab Osmometer	400	500
Organic Chlorides, as % chlorine	SM-205-12		0.004
Inorganic Chlorides	ASTM D878	Nil	
Color, Initial	ASTM D1500		1.0
after heating 96 hrs. @ 239°F	ASTM D1934		1.5
Pour Point, °F	ASTM D97		-25
Weight Loss at 250 Microns Hg			

DSW 201751

STLCOPCB4059818

SPECIFICATIONS FOR
GOLDEN BEAR CABLE OIL – GB 750-800

	[illegible]	[illegible]	[illegible]	ASTM Method
Color:				
Initial	1.0*	1.5 max.	2	D-1500
After heating 96 hrs. @ 115 C	1.5*	--	4	—
After heating 96 hrs. @ 115 C, with copper	2.5	—	—	—
Dielectric Strength @ 25 C, kv	35+*	35 min.	30	D-877
Flash Point, COC, degrees F	425*	400 min.	380	D-92
Inorganic chlorides and sulfates	nil	nil	nil	D-878
Water content as shipped, ppm	15*	25 max.*	46 max.	D-1533
Neutralization Number, mg KOH/gm:				
Initial	0.02*	0.05 max.	0.05 max.	D-974
After heating 96 hrs. @ 115 C	0.04*	0.10 max.	0.10 max.	—
Pour Point, degrees F	-10*	-5 max.	-5 max.	D-97
Tangent delta, 60 CPS @ 100 C – $X10^{-4}$:				
Initial	1.0*	10 max.	60.0	D-924
After heating 96 hrs. @ 115 C	25*	50 max.	280.0	—
After heating 96 hrs. @ 115 C, with copper	100	—	—	—
Resistivity @ 100 C, ohm – cm X 10^{12}:				
Initial	100*	50 min.*	2.5	D-1169
After heating 96 hrs. @ 115 C	15*	5 min.*	0.5	—
After heating 96 hrs. @ 115 C, with copper	2.5	—	—	—
Specific Gravity @ 15.6/15.6 C	0.904	—	0.917-0.930	D-1298
Sulfur, free	1B	2 max.	non-corrosive	D-1275
Sulfur, total w%	0.055*	0.10 max.*	0.35	D-129
Viscosity @ 100 F, SUS	772	750-800	750-800	D-88
Viscosity @ 210 F, SUS	65.8	60-68	58-63	—
Kinematic Viscosity @ 100 F, CSTS	166.56	162-173	162-173	D-445
Kinematic Viscosity @ 210 F, CSTS	11.82	—	9.65-11.05	—

*Exceeds ASTM requirements for high-pressure cable insulating oils. (D 1819)

DSW 201752

STLCOPCB4059819