

Table 2 • Typical Physical

		Range of Average Molecular Weight	Density, g/cm ³			Melting or Freezing Range, °C
			20°C	60°C	80°C	
CARBOWAX Polyethylene Glycols	200	190 to 210	1.1239	1.0922	—	(i)
	300	285 to 315	1.1250	1.0928	—	-15 to -8
	400	380 to 420	1.1254	1.0930	—	4 to 8
	540 Blend ^(a)	500 to 600	—	1.0930	1.0764	38 to 41
	600	570 to 630	1.1257	1.0930	—	20 to 25
	900	855 to 900	—	1.0927	1.0763	32 to 36
	1000	950 to 1050	—	1.0926	1.0765	37 to 40
	1450	1300 to 1600	—	1.0919	1.0761	43 to 46
	3350	3000 to 3700	—	1.0926	1.0764	54 to 58
	4600	4400 to 4800	—	1.0926	1.0764	57 to 61
	8000	7000 to 9000	—	1.0845 ^(b)	1.0689 ^(d)	60 to 63
	Compound 20M	15,000 to 20,000	—	1.0540 ^(c)	1.0392 ^(e)	61 to 64
CARBOWAX Methoxy Polyethylene Glycols	350	335 to 365	1.0891	1.0544	—	-5 to 10
	550	525 to 575	1.1039	1.0690	—	15 to 25
	750	715 to 785	—	1.0760	1.0595	27 to 32
	2000	1900 to 2100	—	1.0871	1.0707	49 to 54
	5000	4750 to 5250	—	1.0907	1.0743	57 to 63

FOOTNOTES: (a) A 41/59 wt. % mixture of PEG 300 and PEG 1450

(b) At 70°C

(c) At 120°C

(d) At 90°C

(e) At 140°C

(f) Sets to glass below -65°C

(g) Approximate

(h) Solid at specified temperature

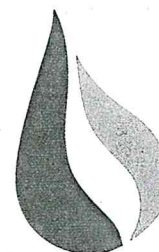
(i) 50% aqueous solution

(j) At 40°C

(k) Midpoint of freezing range to 100°C

(l) Midpoint of 25°C to 100°C

(m) Cosmetics, Toiletries, and Fragrances Association

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	Solubility in Water at 20°C, % by weight	Viscosity at 210°F, centistokes	Average Number of Repeating Oxyethylene Units	Surface Tension at 25°C dynes/cm	Refractive Index n _D ²⁰	Average Liquid Specific Heat ^(k) , cal/g/°C	Heat of Fusion cal/g	Heat of Combustion at 25°C, BTU/lb	CTFA ^(m) Nomenclature
200	Complete	4.3	4.2	44.5	1.459	0.52 ^(l)	(f)	10,180	PEG-4
300	Complete	5.8	6.4	44.5	1.463	0.51 ^(l)	37	10,830	PEG-6
400	Complete	7.3	8.7	44.5	1.465	0.49 ^(l)	36	11,060	PEG-8
540	73	15.1	(a)	(h)	(h)	0.54	37	11,090	PEG-6 (and) PEG-32
600	Complete	10.8	13.2	44.5	1.467	0.59 ^(l)	35	11,130	PEG-12
900	86	15.3	20.0	(h)	(h)	0.54	36	11,200	PEG-20
1000	80	17.2	22.3	(h)	(h)	0.54	37	11,250	PEG-20
1450	72	26.5	32.5	(h)	(h)	0.54	37	11,320	PEG-32
3350	67	90.8	75.7	(h)	(h)	0.50	43	11,350	PEG-75
4600	65	184	104.1	(h)	(h)	0.55	45	11,375	PEG-100
8000	63	822	181.4	(h)	(h)	0.55	46	11,390	PEG-150
	65 ^(g)	18,650	2 moles 8000 joined with an epoxide	52.0 ⁽ⁱ⁾	(h)	0.59	41	11,460	PEG-350
	Complete	3.9	7.2	40.0	1.455	0.52		11,309	PEG-6 Methyl Ether
	Complete	6.6	11.8	37.5 ^(j)	1.455 ^(j)	0.55		10,596	PEG-10 Methyl Ether
	Complete	10.3	16.3	40.7 ^(j)	1.459 ^(j)	0.47	44	11,425	PEG-16 Methyl Ether
	68	45.5	44.7	(h)	(h)	0.53	52	11,379	PEG-40 Methyl Ether
	64	320	112.9	(h)	(h)	0.49	52	11,344	PEG-100 Methyl Ether

