TABLE 3.

Aromatic Process Oils
Product Data Sheet

Typical Properties	ASTM Method	RAFFEX® 90	RAFFEX® 100	RAFFEX® 120	RAFFEX® 200
Viscosity, SUS @ 100F	D2161	3852	6526	12400	69960
Viscosity, SUS @ 210F	D2161	81.9	103	120	210
Viscosity, cSt @ 40C	D445	662	1108	2036	10500
Viscosity, cSt @ 100C	D445	15.34	20.15	23.77	42.00
API Gravity	D287	10.9	10.4	9.5	6.1
Specific Gravity @ 60F	D1250	0.9937	0.9972	1.0035	1.0283
Density, lb/gal @ 60F	D1250	8.276	8.305	8.358	8.565
Color	D1500	D8.0	D8.0	D8.0	D8.0
Flash, COC, F	D92	410	415	420	450
Pour Point, F	D97	45	49	60	85
Aniline Point, F	D611	99	92	88	80
Refractive Index @ 20C	D1218	1.5535	1.5624	1.5660	1.5883
Neut. No., mg KOH/g	D974	5.5	5.3	7.0	7.0
Sulfur, w%	D2622	1.11	1.11	1.12	1.30
Clay-Gel Analysis, w%	D2007				
Asphaltenes		0	0	0	0
Polar Compounds		17	23	21	28
Aromatics		65	55	65	62
Saturates		18	22	14	10
Carbon-Type Analysis, %	D2140				
Ca		41	37	42	47
Cn		38	32	36	22
Cp		21	31	22	31

TABLE 4.

Naphthenic Lube/Process Oils
Product Data Sheet

Typical Properties	ASTM Method	RAFFENE ® 200L	750L	1200L	2000L
Viscosity, SUS @ 100F	D2161	199	876	1445	2034
Viscosity, SUS @ 210F	D2161	43.1	63.4	75.3	83.8
Viscosity, cSt @ 40C	D445	38.13	162.1	263.80	366.4
Viscosity, cSt @ 100C	D445	5.18	10.81	13.84	15.99
API Gravity	D287	23.9	21.2	21.0	18.9
Specific Gravity @ 60F	D1250	0.9106	0.9267	0.9279	0.9408
Density, lb/gal @ 60F	D1250	7.582	7.717	7.727	7.835
Color	D1500	2.5	3.0	3.5	L4.5
Flash, COC, F	D92	355	390	415	420
Pour Point, F	D97	-20	5	15	30
Aniline Point, F	D611	176	180	190	177
Refractive Index @ 20C	D1218	1.4957	1.5050	1.5048	1.5113
Neut. No., mg KOH/g	D974	0.13	0.19	0.43	0.56
Sulfur, w%	D4294		0.69	0.78	0.87
Clay-Gel Analysis, w%	D2007				
Asphaltenes		0	0	0	0
Polar Compounds		4	3	3	6
Aromatics		28	37	41	45
Saturates		68	60	56	49
Carbon-Type Analysis, %	D2140				
Ca		7	10	8	12
Cn		50	46	48	49
Cp		43	44	44	39

Applications for Interlinked Substituted Rubber Material

[0298] As discussed herein, the interlinked substituted rubber material of the embodiments is suitable for use in a wide variety of applications, including the tire and paving applications discussed above, or any other applications wherein virgin rubber would be employed. By using various, reactive adhesive matrices, e.g., hot melts (e.g., asphalt, SBR, polyisobutylene (PIB), and polyethylene (PE)) and multicomponent reactives (e.g., fatty acid based polyols), artifacts have been made and the properties have been evaluated. These properties suggest that the compounded interlinked substituted rubber material can effectively compete with much more expensive silicone, urethane, epoxy, and ethylene-propylene-diene terpolymer (EPDM) based materials at a fraction of the cost. The compounded interlinked substituted rubber material is waterproof, exhibits lightweight structural properties, is abrasion