

Comparison of Ricon^o 154 Vs. TMPTMA

Ricon^o 154 is a superior coagent to trimethylol propane trimethacrylate (TMPTMA) and can provide improvement in:

- Better Compression Set
- Better Creep Resistance
- Superior Scorch Protection
- Superior Efficiency
- Lower Compound Cost

In order to compare Ricon^o 154 with TMPTMA, a head to head comparison of the coagents was conducted and shows the superior performance of Ricon^o 154 at equal phr.

Base Formulation

Nordel 1040*	100	100	100
N660	50	50	50
Zinc Oxide	5	5	5
Agerite Resin D	0.5	0.5	0.5
Vulcup	4.25	4.25	4.25
Ricon ^o 154			2
TMPTMA		2	

Physical Properties

MLdNm	11	12.2	12.1
MHdNm	40.9	44.2	45.3
T2minutes	2.2	1.6	2
T90 minutes	28.2	36.6	39.2
Tensile Mpa	15.8	16.9	16.6
Modulus @ 50% Mpa	1.4	1.8	2
Modulus @ 100% Mpa	2.4	2.9	3.6
Elongation %	310	300	255
Tear KN.m	37.1	69	70
Hardness Shore A	73	69	70
Compression Set 168 hrs @150°C %	38.1	37.8	34.4

* Nordel 1040 is no longer available from Dupont - consult Manufacturer for a suitable substitute

In a controlled study matching relative crosslink densities, Ricon^o 154 is more effective than TMPTMA.

	Control	Coagent	Variables
Ricon ^o 154		5	
TMPTMA			12
Physical Properties			
MLdNm	11	10.4	11.5
MHdNm	40.9	53.3	50
T2 minutes	2.2	1.3	2.3
T90 minutes	28.2	27.2	29.2
Tensile MPa	15.8	15.7	15.4
Modulus @ 50% MPa	1.4	1.8	2.1
Modulus @ 100% MPa	2.4	4.4	4.6
Elongation %	310	205	200
Tear KN/m	37.1	36.6	31.9
Hardness Shore A	73	77	73
Compression Set 168 hrs @150°C %	38.1	28.9	22.9

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