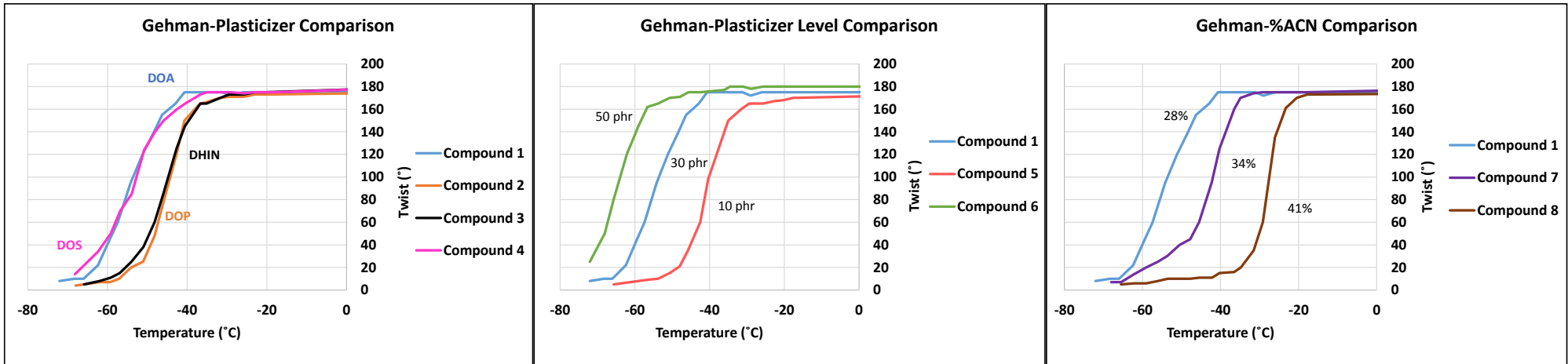


# NBR Plasticizer Study



Constant Formula: N 330, 40.00; ZnO, 3.00; St. Acid, 1.00; Spider Sulfur, 1.50; BBTS, 0.70

## Testing Results

Defining Characteristic	Control	DOP	DHIN	DOS	10 phr DOA	50 phr DOA	34% ACN, 50MU	41% ACN, 60MU
Compound	1	2	3	4	5	6	7	8
ML 1+4 at 212°F (MU)	21	26	23	25	40	12	22	15
Durometer	48	49	48	45	58	35	48	51
Tensile Strength (Psi)	1325	1805	1425	1137	2461	949	1568	2097
Elongation (%)	600	667	622	578	553	648	583	557
300% Modulus	439	429	376	384	853	242	538	744
Tear Die C	135	163	160	135	201	101	167	214
Low Temp. Resistance* (°C)	-55	-39	-39	-55	-41	-60	-41	-22

## Formula Changes (PHR)

	1	2	3	4	5	6	7	8
NBR: 28% ACN, 50MU	100	100	100	100	100	100		
NBR: 34% ACN, 50MU	-	-	-	-	-	-	100	
NBR: 41% ACN, 60MU	-	-	-	-	-	-		100
DOA	30	-	-	-	10	50	30	30
DOP(DOT Hazard)	-	30	-	-	-	-	-	-
Plasticizer DHIN	-	-	30	-	-	-	-	-
DOS	-	-	-	30	-	-	-	-

\*Low Temperature Resistance tested after 3 minutes of immersion in methanol and dry ice. Reported at lowest point of nonbrittle performance. Lowest temperature tested was 60°C.