



Master Mix - PN-280

PN-280 is 65% Premix of Liquid NBR & Silica available in dry milky white powder form. This helps eliminate difficulties faced in handling viscous & sticky Liquid NBR. PN-280 is a relatively free flowing powder after long storage period. PN-280 is used as a cross linkable Polymeric Plasticizer for components made using NBR.

Salient Features:

- PN-280 is 65% Active.
- It is Non Migratory in Nature preventing extraction and negative swelling in oil especially excellent to use with High ACN content NBR to provide positive volume swelling.
- Excellent processibility to control viscosity by regulating the doses.
- Easier dosage & accurate weighing.
- It Improves Flow and Knitting properties.
- At higher dose of 10-15 parts, it Improves Modulus, Compression set and abrasion properties.
- It is Blendable with most Polar Rubber like NBR, CR, CSM, ECO and CPE.

Chemical & Physical Properties

Property	Specification
Appearance	Powder
Active NBR Content	65 ± 2%
Colour	Off White
Ash Content %	35 ± 1%
Bound ACN % of Liquid NBR	28 - 30
Volatile Content (Max)	2.5%

Applications:

- Low Hardness Compounds
- Thin cross section Hoses
- Molded Goods
- Roll Covering Compounds
- Cots & Aprons

Comparison of Liquid NBR and PN-280

SR No	Ingredients	Control Compound	Compound 1	Compound 2
1	NBR 230 S	100.00	100.00	100.00
2	ZINC OXIDE	5.00	5.00	5.00
3	STEARIC ACID	1.20	1.20	1.20
4	SULPHUR	0.80	0.80	0.80
5	J-PR-4168	5.00	5.00	5.00
6	FEF	72.20	72.20	72.20
7	N280 (LIQUID)	6.00	00	00
8	PN280 (POWDER)	00	6.00	8.80
9	DOP	10.00	10.00	10.00
10	TMTD	1.20	1.20	1.20
11	CBS	1.20	1.20	1.20
	Total	202.60	202.60	205.40

Initial Properties

MOONEY VISCOSTTY	ML ₍₊₄₎ @ 100°C	47.44	48.25	46.67
ML d Nm	ODR @170°C, 10 mins	14.22	15.78	16.89
MH d Nm		31.27	19.16	21.66
Ts2 minute		1.3	1.43	1.52
Tc90 minute		1.68	1.67	1.85
Shore Hardness (Sh A)		67	67	65
Specific Gravity	CURED @165°C,10 mins	1.208	1.208	1.195
Tensile strength ,Kg/CM ²		148.54	163.97	145.32
Elongation at break,% (Min)		415	446	510

After Ageing Properties

Shore Hardness (Sh A)	Heat Ageing @100°C, 72 Hrs	74 (+7)	75 (+8)	70 (+5)
Specific Gravity		1.215 (+0.58%)	1.217 (+0.74%)	1.199 (+0.33%)
Tensile strength, Kg/CM ²		160.09 (+7.77%)	160.26 (-2.26%)	142.73 (-1.78%)
Elongation at break,% (Min)		251 (-39%)	212 (-52%)	311 (-39%)

