

NOXTITE® ACM Polymers Selection Guide



including CHEMINOX® ACM curing agents

Product Name	¹ ML(1+4) @ 100°C	² Tg [°C]	Compound Formulation	³ Service Temp. [°C]	⁴ Oil Swell [%]	⁵ C.S. [%] 70h / 150 °C	Key Features
POLYMER PROPERTIES			ELASTOMER PROPERTIES				
HT ACM Polymers⁶ - Diamine Curable Grades (Carboxy Cure Site)							
PA-522HF	30	-31	A	+175	+31	15	Excellent heat and compression set resistance
PA-522	30	-31	A	+170	+16	14	Superior heat and oil resistance sealing grade
PA-522V	34	-31	A	+175	+29	15	High wear resistance grade
PA-524	25	-44	A	+165	+34	15	Low temperature grade
PA-526	36	-26	A	+185	+11	35	Terpolymer with excellent tear & oil resistance (Hose optimized)
PA-527	38	-28	A	+185	+23	19	Copolymer with balanced properties (Hose optimized)
Common ACM Polymers - Sulfur/Soap and/or Triazine Curable (Active Chlorine Cure Site)							
PA-401L	48	-14	B (C) ⁷	+165	+13	35 (22) ⁷	Highly oil-resistant sealing grade
PA-402B	34	-31	B (C) ⁷	+165	+18	33 (16) ⁷	Balanced properties for all processes
PA-403	39	-36	B (C) ⁷	+160	+21	36 (16) ⁷	Fair heat and cold resistance
PA-404N	30	-42	B (C) ⁷	+150	+21	32 (15) ⁷	Universal low temperature grade
Non-Post Cure ACM Polymers - Base Curable (Chlorine Carboxy Dual Cure Site)							
PA-421L	35	-18	D	+165	+11	15 (19) ⁸	Fast cure and maximum oil resistance
PA-422L	24	-33	D	+160	+18	14 (15) ⁸	Fast cure and low temperature grade

CHEMINOX® ACM Curing Agents / Retarders

Ingredients / Appearance

AC 6C Standard diamine curing

HMDC = Hexamethylene diamine carbamate (97%), oil coated, treated powder, dust suppressed form

CLZ 77 Retarded diamine curing

BAPP = [2,2-bis(4-(4'-aminophenoxy)phenyl)propane (50%) and ACM binder (50%), granules; providing highest dynamic hose properties (excellent fatigue resistance) combined with a scorch safety processing behavior

All properties provided are typical properties and not intended to serve as specifications

¹) JIS K6300 method; ²) polymer Tg determined by DSC, JIS K6240, but 10°C/min; ³) typical service temperature of molded parts; ⁴) volume change in IRM 903, 70h/150°C, ISO 1817 method; ⁵) JIS K6262 method, air; ⁶) High Temperature ACM; ⁷) compression set optimized formulation; ⁸) compression set of non-post cured vulcanizate



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Exemplary Compound Formulations

Formulation		A	B	C	D
Hardness Duro A		65±5	70±5	70±5	60±5
Noxite® Polymer	phr	100	100	100	100
HAF (N330)	phr		60±5	60±5	
FEF (N550)	phr	60±5			60±5
Stearic acid	phr	1	1	1	1
Diphenylamine antioxidant	phr	2	2	2	2
Processing /dispersing aids	phr	0.5–2	2	2	2
DBU 70%	phr	1			
Cheminox® AC-6C	phr	0.6			
Sodium stearate	phr		3		3–4
Potassium stearate	phr		0.25		
Sulfur	phr		0.3		
Trimercapto- <i>s</i> -triazine	phr			0.5	
Zinc di- <i>n</i> -butyl dithiocarbamate	phr			1.5	
OTAB 50%	phr				1–2
Diphenyl urea 50% (retarder)	phr				0–4

DBU = 1,8-Diazabicyclo[5.4.0]undec-7-ene
OTAB = Octadecyltrimethylammonium bromide

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