

IMPROVE HOSE PERFORMANCE WITH NON-PHTHALATE PLASTICIZERS

Hallstar's innovative Plasthall® PR-Series of plasticizers is on the leading edge of phthalate replacement technology. The PR-Series can be used in all types of applications, but is especially effective with nitrile rubber (NBR) automotive hoses. Our products don't just replace phthalates—they improve performance with no environmental issues.

PLASTHALL® PHTHALATE REPLACEMENTS OUTPERFORM STANDARD PHTHALATES

	PLASTICIZER						
	Plasthall® PR-Series						
	A126	A200	A217	A610	LCOA	DOTP	DINP
Original Physical Properties							
Stress at 300% Elongation, MPa	10.7	7.6	7.7	9.1	7.8	8.1	7.1
Hardness Duro A, pts.	62	60	60	61	60	60	58
Low Temperature Brittleness, °C	-42	-41	-35	-32	-33	-35	-36
Air Oven, 70h at 125°C							
Weight Change, %	-3.5	-3.5	-1.9	-3.5	-1.0	-5.4	-2.7
IRM 901 Oil, 70h at 125°C							
Volume Change, %	-12	-8.8	-6.2	-1.1	-3.2	-12.2	-11
Weight Change, %	-11	-8.0	-6.0	-0.5	-3.1	-10.9	-9.4
IRM 903 Oil, 70h at 125°C							
Volume Change, %	0.6	1.5	3.7	0.9	9.8	0.4	4.0
Weight Change, %	-0.8	0.3	2.0	-0.6	6.7	-0.6	3.0
ASTM Fuel C Dry Out, 22h at 70°C							
Volume Change, %	-12	-11	-9.8	-12	-9.2	-13	-13
Weight Change, %	-11	-10	-9.7	-11	-8.7	-11	-11

First Choice
Second Choice

Formulation: Krynac® 3345F - 100.0, Kadox® 920 - 5.0, TMQ - 1.0, Stearic Acid - 1.0, Carbon Black N660 - 65.0, Plasticizer Variable - 20.0, Sulfur Spider® - 0.4, MBTS - 2.0, ZDMC - 1.5

Krynac® is a registered trademark of Lanxess. Kadox® is a registered trademark of Horsehead Corporation. Plasthall® is a registered trademark of Hallstar.

Hallstar works collaboratively with companies around the world to create and enhance next-generation products.

Hallstar's expertise in polymer modification and optimization, coupled with our application knowledge across a wide range of industrial products, is unique in the specialty chemical industry.



LET'S WORK WONDERS™