



PHYSICAL AND ELECTRICAL REQUERIMENTS FOR POWER CABLES WITH DRYLENE INSULATION

PHYSICAL REQUERIMENTS	INSULATION		JACKET	
	XLPE		PVC	PE
Original: - Tensile strength – psi min - Elongation % min.	1.800 250		1.500 100	1.400 350
Aged – Air oven test: - Temperature, °C - Period, hours	120±1 168		100±1 120	90±1 48
Min. % of retention: - Tensile - Elongation	75 75		85 60	75 75
Aged-Oil immersion test at 70±1 °C for 4 hours. Min. % of retention - Tensile - Elongation	-- --		80 60	-- --
Heat distortion: - After air oven test at °C	120±1		120±1	90±1
Max. % of unaged value	Up to 2000V Over 2000V	30 (4/0 AWG and smaller) or 10 (larger than 4/0 AWG) 25 (4/0 AWG and smaller) or 15 (larger than 4/0 AWG)	50	25
Heat shock: - After air iven test ed 120±1 °C			no cracks	
Solvent extraction: -After 20 hours dryng time, max. %	30			
ELECTRICAL REQUERIMENTS				
Insulation resistance constant at 15.6 °C (60F) MΩ/1000 ft min.	Up to 2000V Over 2000V	10.000 20.000	-- --	-- --
Dielectric constant at room temperature, maximum %.	Over 5000V	3.5	--	--
Power factor at room temperature, maximum %.	Over 5000V	2.0	--	--
ACCELERATED WATER ABSORPTION REQUERIMENTS ELECTRICAL				
Increase in capacitance max. % (75°C water) 1-14 days 7-14 days		3.0 1.5	-- --	-- --
Stability factor-after 14 days, max. Alternate to stability factor: Stability factor difference, 1 to 14 days, max.		1.0 0.5	-- --	-- --
MECHANICAL				
Increase in weighy, mg/in2 max. (70°C for 168 h)		5.0	--	--
TEST VOLTAGE				
AC for 5 minutes DC for 15 minutes (alternate to AC voltage, test) Minimum corona extinction level over 2000V		125 V/mil of insulation 375 V/mil of insulation Not less than 125% of rated voltage to ground	-- -- --	-- -- --