2. COMMERCIAL POLYMER TYPES AND GRADES

The commercial polymers are classified into two types; one is the TFE-P dipolymer type (AFLAS 100 and 150 grades), and the other is the TFE-P-VdF terpolymer type (AFLAS M grades and AFLAS S grades). AFLAS M grades are characterized by the improved low-temperature properties, and AFLAS S grades are characterized by the improved processability for vulcanization, demoldability and metal bonding while maintaining most of the high heat and chemical resistance and electrical resistivity of the dipolymer.

Here are listed the polymer grades now available, which are mainly classified according to Mooney viscosity. Dipolymer is mostly used in the wire and cable, and automotive industries, while terpolymer is often favored for automotive use in terms of the processability.

● **Commercial Polymer Types and Grades of AFLAS**

Structure	TFE/P							TFE/P/VdF	
Grade	#150L	#150E	#150P	#100S	#100H	#150CS	#150C	#SP	MZ201
Specific gravity	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.51	1.60
Fluorine content, %	57	57	57	57	57	57	57	55	60
Mooney viscosity ML1+10 (100°C)	*35	60	95	160*	110*	130	100*	75	50
Glass transition temperature, °C	-3	-3	-3	-3	-3	-3	-3	-3	-13
Appearance	——————— Dark brown ———————					——— White ———		——— yellowish ———	
Cure System	——————— Peroxide ———————					——— EB ———		Peroxide	Bisphenol
Characteristics and applications	Lining	Extrusion	General	——— High Strength ———		——— Extrusion ———		General	General

*; False Mooney value due to rotor slippage