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FSE Specialty FKM & FFKM Gumstock Selection Guide

Grade	Polymer properties									Description	Typical Use
	Nominal Viscosity ML (1+10) @ 121 ℃	Specific Gravity g/cm^3	Fluorine Content F%	Vol. Change Fuel C / 70h@23℃	Tr10 ℃	Tensile (MPa)	Elong (%)	Duro (Shore A pts)	Compression Set, % 70h @ 200℃		
BDP Series: Peroxide curbale FKMs with broad chemical resistance											
BDP250C	25	1.80	66	+75~+105%	-18	18.6	260	74	29	VDF/HFP copolymer: excellent mold flow and extrudability, resistance to steam, superheated water, aromatic hydrocarbons, acids, etc.	injection and transfer molding of seals and extrusion of hoses in contact with fuels, engine oils and coolants.
BDP450C	45	1.80	66	+75~+105%	-18	22.6	280	75	29	VDF/HFP copolymer: excellent mechanical properties, resistance to steam, superheated water, aromatic hydrocarbons, acids, etc.	tranfer and compression moldiing of static and dynamic seals in contact with fuels, engine oils and coolants.
BDP300LT	30	1.80	66	+75~+105%	-18	23	255	75	26	VDF/HFP/TFE terpolymer: excellent mold flow and extrudability, resistance to steam, superheated water, aromatic hydrocarbons, acids, etc.	injection, tranfer and compression moldiing of static and dynamic seals in contact with fuels, engine oils and coolants.
BDP200T	22	1.85	67	+40~+50%	-14	20.4	260	72	29	VDF/HFP/TFE terpolymer: excellent mold flow and extrudability, resistance to steam, superheated water, aromatic hydrocarbons, acids, etc.	injection and transfer molding of seals and extrusion of hoses in contact with fuels, engine oils and coolants.
BDP300T	30	1.85	67	+40~+50%	-14	19.4	260	75	31	VDF/HFP/TFE terpolymer: excellent mold flow and extrudability, resistance to steam, superheated water, aromatic hydrocarbons, acids, etc.	injection, tranfer and compression moldiing of static and dynamic seals in contact with fuels, engine oils and coolants.
BDP400T	40	1.84	67	+40~+50%	-14	19.8	240	72	25	VDF/HFP terpolymer: excellent mechanical properties, resistance to steam, superheated water, aromatic hydrocarbons, acids, etc.	calendering and compression moldiing of static and dynamic seals in contact with fuels, engine oils and coolants.
BDP600T	58	1.84	67	+40~+50%	-14	22	235	72	25	VDF/HFP terpolymer: excellent mechanical properties, resistance to steam, superheated water, aromatic hydrocarbons, acids, etc.	calendering and compression moldiing of static and dynamic seals in contact with fuels, engine oils and coolants.
BDP200S	23	1.90	70	+5~+10%	-6	21.4	200	81	24	VDF/HFP/TFE terpolymer: excellent mold flow and extrudability, resistance to a wide range of chemicals including lithium battery electrolyte and biofuels.	injection and transfer molding of seals and extrusion of hoses in contact with fuels, engine oils and coolants.
BDP350S	33	1.90	70	+5~+10%	-6	22	235	76	30	VDF/HFP/TFE terpolymer: excellent mold flow and extrudability, resistance to a wide range of chemicals including lithium battery electrolyte and biofuels.	injection, transfer and compression molding of static and dynamic seals requiring high chemical resistance.
BDP600S	58	1.90	70	+5~+10%	-6	23	210	80	18	VDF/HFP/TFE terpolymer: excellent mold flow and extrudability, resistance to a wide range of chemicals including lithium battery electrolyte and biofuels.	calendering and compression molding of static and dynamic seals requiring high chemical resistance.
TPR600S	60	1.55	57	<+5%	+3	22.5	230	72	30	TFE/PP copolymer (FEPM): Excellent resistance to a wide range of chemicals including steam, superheated water, acids, alkali, amine, H2S, etc.	compression molding of static and dynamic seals requiring resistance to amine and alaki.
BDPL Series: Low temperature peroxide curbale FKM grades											
BDPL253	30	1.85	67	+15~+30%	-25	18.2	220	74	25	Excellent mold flow and mold release, good balance between low temperature flexibility and excellent fuel resistance.	injection, transfer molding of seals or extrusion of hoses requiring low temperature flexibility.
BDPL256	55	1.85	67	+15~+30%	-25	19	230	73	25	Excellent mold flow and mold release, good balance between low temperature flexibility and excellent fuel resistance.	calendering and compression molding of seals or extrusion of hoses requiring low temperature flexibility.
BDPL303	30	1.80	64	+75~+105%	-30	18	210	72	23	Excellent mold flow and mold release, good balance between excellent low temperature flexibility and good fuel resistance.	injection, transfer molding of seals or extrusion of hoses requiring low temperature flexibility.
BDPL306	58	1.80	64	+75~+105%	-30	19.5	220	74	26	Excellent mold flow and mold release, good balance between excellent low temperature flexibility and good fuel resistance.	calendering and compression molding of seals or extrusion of hoses requiring low temperature flexibility.
BDPL404	45	1.80	64	+75~+105%	-40	16.4	200	69	22	Excellent mold flow and mold release, good balance between superior low temperature flexibility and properly good fuel resistance.	injection, transfer molding of seals or extrusion of hoses requiring low temperature flexibility.
BDFF Series: Perfluoroelastomer (FFKM)											
BDFF206	60	2.03	72.5	/	-20	15.6	172	73	23	Good balance between low temperature flexibility and superior resistance to broad range of chemicals	compression moldiing of static and dynamic seals requiring low temperature flexibility and excellent resistance to a wide range of chemicals
BDFF325	40	2.03	72.5	/	-4	18.2	152	75	17	excellent mold flow and mold release, general-purpose FFKM with superior resistance to a wide range of chemicals, maximum service temperature up to +220°C	compression moldiing of seals or hoses/profiles requiring superior resistance to a wide range of chemicals
BDFF327	75	2.03	72.5	/	-4	21.6	160	76	26 (@230°C)	excellent mold flow and mold release, chemical resistance FFKM of general purpose, maximum service temperature up to +230°C	compression molding of seals requiring superior resistance to a wide range of chemicals.
BDFF329	77	2.03	72.5	/	-4	25.7	145	81	20 (@230°C)	Excellent mechanical properties, general-purpose FFKM with superior resistance to a wide range of chemicals, maximum service temperature up to +230°C	compression molding of high-hardness seals requiring superior resistance to a wide range of chemicals.
BDFF880	90	2.04	72.5	/	-3	17.3	141	67	43 (@275°C)	high temperature FFKM with excellent resistance to a wide range of chemicals, maximum service temperature up to +280°C	compression molding of seals requiring suprior resistance to a wide range of chemicals.
BDFF881	75	2.04	72.5	/	-3	13.5	220	63	45 (@275°C)	nano particles of resin filled, high temperature FFKM with excellent resistance to a wide range of chemicals, maximum service temperature up to +280 °C	compression molding of high-purity seals requiring suprior resistance to a wide range of chemicals.
BDFF882	95	2.06	72.5	/	-3	16.5	200	73	48 (@275°C)	nano particles of resin filled, high temperature FFKM with excellent resistance to a wide range of chemicals, maximum service temperature up to +280 °C	compression molding of high-purity seals requiring suprior resistance to a wide range of chemicals.
BDFF460	45	2.04	72.5	/	-2	21.5	180	80	28 (@290°C)	Maximum service temperature up to +315°C, exellent resistance to various acids, polar solvents, plasma chemicals, etc.	compression molding of seals requiring excellent resistance to a wide range of chemicals and superior heat resistance.
BDFF461	60	2.04	72.5	/	-2	15.5	220	64	32 (@290°C)	nano particles of resin filled, high temperature FFKM, maximum service temperature up to +315°C	compression molding of high-purity seals requiring suprior heat resistance and excellent resistance to a wide range of chemicals.
BDFF462	80	2.06	72.5	/	-2	16.5	205	75	32 (@290°C)	nano particles of resin filled, high temperature FFKM, maximum service temperature up to +315°C	compression molding of high-purity seals requiring suprior heat resistance and excellent resistance to a wide range of chemicals.

Note: Properties of the vulcanizates depend on formulation, including curative system and fillers(types & ratio), as well as the curing conditions.
Typical data not for specification purpose.

This guide is an overview of the commonly used grades of FSE. FSE keeps continuous improvement and development of new grades for customer's uses.