

HIGH PERFORMANCE SEALING MATERIAL FOR HARSH ENVIRONMENTS

-----FLUOROELASTOMER



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Important to purchaser

The data in this publication is based on the test performed at Dowhon laboratory facilities or the other facilities that have been qualified by us, your results may vary due to differences in test types and conditions.



Fluoroelastomer precompound/Polymer physical properties

Type	Product	F%	S.G.	Mooney Viscosity	Tensile	Elongation	Compression set	TR10	Application	Product features	Recommended Process Method				
			g/cm3	ML1+10 @ 121℃	Mpa	%	% ASTM D395 Method B 200℃×70hr	℃			Compression	Transfer	Injection	Extrusion	Calendering
Bisphenol curing precompound	O-ring and gasket grade														
	Copolymer														
	FD-201C	66.00	1.80	20	12.90	180	16	-17	O-ring or gasket	Low compression set,excellent flow	**	***	***	**	*
	FD-251C	66.00	1.80	25	13.50	200	17	-17	O-ring or gasket	Excellent flow and mold release	**	***	***	**	*
	DTR-5630	66.00	1.80	30	14.90	206	14	-17	O-ring or gasket	Low compression set, excellent processing performance	***	***	***	**	*
	DTR-5639	66.00	1.80	39	15.80	226	13	-17	O-ring or gasket	Low compression set, excellent processing performance	***	*	*		**
	FD-451E	66.00	1.81	45	15.00	200	16	-17	O-ring or gasket	Wide molecular weight distribution version of FD-451C	***	*	*		**
	FD-551E	66.00	1.81	56	15.30	180	12	-17	O-ring or gasket	Low compression set, excellent flow and mold release	***				*
	FD-601C	66.00	1.81	65	16.20	190	14	-17	O-ring or gasket	High tensile,low compression set, excellent mold release	***				*
	Terpolymer														
	FD-202F	68.50	1.85	25	13.70	245	27	-14	O-ring or gasket	Excellent flow and mold release, excellent hot and chemical resistance	***	***	***	**	**
	FD-305F	68.50	1.85	38	14.60	230	25	-14	O-ring or gasket	Excellent flow and mold release, excellent hot and chemical resistance	***	**	**	*	*
	FD-45NCF	69.00	1.87	47	16.00	180	25	-13	O-ring or gasket	Excellent flow, chemical resistance	***	*	*		**
	FD-605F	68.50	1.85	65	16.50	210	27	-14	O-ring or gasket	High tensile, excellent flow,mold release,hot and chemical resistance	***				*
	High Fluorine Terpolymer														
	DTR-9074X	70.00	1.90	40	14.10	208	30	-6	O-ring or gasket	Excellent chemical resistance and heat resistance	**				
	DTR-9075X	70.00	1.90	50	15.70	170	23	-7	O-ring or gasket	Excellent chemical resistance and heat resistance	**				
	Metal bonding grade														
	Copolymer														
	FD-202C	66.00	1.80	20	12.50	240	19	-17	Oil seal, O-ring or gasket	Bonding improved and higher elongation version of FD-201C	**	***	***	**	*
	FD-25NC ^①	66.00	1.80	25	14.50	230	18	-17	Oil seal, O-ring or gasket	Calcium free, excellent bonding and flow, low compression set	**	***	***	**	*
	FD-251HE	66.00	1.80	25	14.20	300	32	-17	Oil seal, complicated bonding product	High elongation,excellent hot part tear resistance	**	***	***	**	*
	FD-331C	66.00	1.80	35	14.50	240	22	-17	Oil seal, complicated bonding product	Excellent flow, mold release and hot part tear resistance	***	**	**	*	*
	FD-351G	66.00	1.80	35	13.80	270	27	-17	Oil seal, complicated bonding product	High elongation, and excellent hot part tear resistance	***	**	**	*	*
	FD-40NC ^①	66.00	1.81	42	14.30	230	18	-17	Oil seal, O-ring or gasket	Calcium free,excellent bonding and flow,low compression set	***	*	*		**
	FD-451X	66.00	1.81	45	14.30	280	20	-17	Oil seal, complicated bonding product	Excellent flow,bonding and hot part tear resistance	***	*	*		**
	FD-601HE	66.00	1.81	65	15.50	320	33	-17	Oil seal, complicated bonding or thick product	High elongation and excellent hot part tear resistance	***	**			*
	Terpolymer														
	FD-205F	68.50	1.85	25	14.60	260	27	-14	General compression molding product	Excellent flow, hot and chemical resistance	**	***	***	**	*
	FD-45NPI	68.50	1.85	45	15.30	190	23	-14	General compression molding product	Excellent flow, mold release	***	*	*		**
	FD-461T ^②	68.50	1.85	40	14.60	280	33	-14	Oil seal, complicated bonding product	Calcium free, excellent bonding and hot part tear resistance	***	*	*		**
	Low temperature														
	DTR-8051AL	66.00	1.80	55	17.50	180	16	-21	General compression molding product	Excellent low temperature resistance, high tensile	***	*			
	DTR-8021AL	66.00	1.80	27	15.60	200	20	-20	Extrusion and molding product	Excellent low temperature resistance, high tensile, easy flow	***	**	**		
	Fuel line hose														
	FD-255G ^②	66.00	1.80	25	12.90	300	18	-17	Fuel line hose	Excellent extrusion performance				***	
	DTR-5915	69.00	1.83	13	12.70	310	22	-12	Low permeability fuel line hose	Bimodal,special termination,excellent extrusion, fuel resistance				***	
	DTR-5915TV	69.00	1.83	15	10.30	290	23	-12	Low permeability fuel line hose bonded with THV	Bimodal,special termination,excellent extrusion, fuel resistance				***	
	DTR-5925G	69.00	1.87	25	13.90	330	21	-12	Low permeability fuel line hose	Bimodal,special termination,excellent extrusion, fuel resistance				***	
Peroxide curing	General Use														
	DTR-7820	68.50	1.85	27	19.50	220	35	-13	Extrusion and molding product	Easy flow, excellent resistance to acid, alkali, ATF oil and fuel	**	**	**	**	
	DTR-7840S	67.00	1.83	40	20.30	260	26	-16	General compression molding product	Easy flow, excellent resistance to acid, alkali, ATF oil and fuel	**	*	*		**
	DTR-7920SP	70.00	1.89	26	21.50	200	22	-7	Extrusion and molding product	Easy flow, excellent resistance to acid, alkali, ATF oil and fuel	**	**	**	**	
	Turbocharger hose, EGR hose														
	DTR-7604	66.00	1.80	20	16.10	270	32	-17	Turbocharger hose for winding and extrusion	Excellent compound bonding with silicone rubber, excellent resistance to organic acids				***	**
	DTR-7804	68.50	1.83	20	17.70	230	35	-13	Turbocharger hose for extrusion	Excellent compound bonding with silicone rubber, excellent resistance to organic acids				***	**
	Low temperature														
	DTR-7650GAL	66.00	1.82	50	19.30	240	26	-22	General compression molding product	Excellent resistance to low temperature acid, alkali and ATF oil	**				**
	DTR-7530GL	64.00	1.79	30	18.40	255	22	-30	General compression molding product	Excellent resistance to low temperature acid and steam	**	**	**	**	
	DTR-7550NL	65.00	1.80	60	21.00	210	18	-30	General compression molding product	Excellent resistance to low temperature acid and steam	**				**
	Smart wear														
	DTR-7820P	68.00	1.85	20	18.50	280	27	-15	Smart watch strap, band	Excellent handfeel and skin affinity, excellent colorability, excellent bonding with handfeel oil	**	**	***		
	DTR-7830L	68.50	1.86	30	20.30	380	25	-14	Smart watch strap, band		**	**	**		
	DTR-6720L	67.00	1.83	20	19.80	480	28	-16	Smart watch strap, band		**	**	***		
	DTR-6620P	66.00	1.81	23	18.30	245	24	-18	Smart watch strap, band		**	**	***		

Test compound formula

Precompound	100
N990	30
MgO	3
Ca(OH) ₂	6

Press cure:180℃ @5min,
Post cure: 230℃ @24hour

① formula and test condition

Precompound	100
N990	30
MgO	9

Press cure:165℃ @45min,
Post cure: 250℃ @4hour

② fuel line hose formula and test condition

Precompound	100
N550	12
MgO	3
Ca(OH) ₂	6
VPA No. 2	0. 5
Afluxs 25	1

Press cure: 165℃ @45min
Post cure: 150℃ @4hour
Compression set test: 125℃ @70hr

peroxide formula and test condition

Precompound	100
N990	30
ZnO	5
DBPH-50	3
TAIC	4
HT-290	0. 5

General curing condition:
Press cure: 180℃ @5min,
Post cure: 230℃ @4hour
DBPH-50: 50% 2,5-bis (tert-butylperoxy) 2,5 dimethylthecane)

Smart wear curing condition:
Press cure: 180℃ @5min
Post cure: 180℃ @2hour
Compression set test: 100℃ @70hr

* Suitable
** Very suitable
*** Strongly recommended