



Fluoroelastomers  
**DYNAFLUON**

- Dynafluon manufactures Fluoroelastomer Polymer
- Dynafluon follows individual customer need/specification to design Fluoroelastomer Polymer and Compound. Dynafluon customises Fluoroelastomer to suite end application, manufacturing process & specification.
- Dynafluon offers high performance Fluoroelastomers for lower compression set, better abrasion resistance, improved stress/strain (modulus) characteristics, and other special properties required such as low post cure time, high tensile strength.
- Dynafluon Fluoroelastomer Polymer and Custom Compounds are versatile material, flexible and designed for all processes like injection, transfer, compression moulding, calendaring, autoclaving and extrusion.



## **DYNAFLUON**

406, Rainbow Chambers, S.V.Road, Poinsur, Kandivali (W), Mumbai – 400067, India

Tel : +91-22-28652307 • Fax : +91-22-28612795 • Cell: +91-9320142795

Email: [info@dynafluon.com](mailto:info@dynafluon.com) / [ajempl@gmail.com](mailto:ajempl@gmail.com)

[www.dynafluon.com](http://www.dynafluon.com)

## APPLICATION GUIDE



Fluoroelastomers with excellent thermal, oil, and chemical resistance that has a successful track record of use in various industries.



Examples of use of AFLAS® in a protective application:

- Gasket / packing / O-ring
- Protective covers
- Multi-layer power cable
- Packer element



Examples of use of AFLAS® in a protective application:

- Cylinder-Head gasket
- cooler hose / turbocharger hose
- Oil seal / pinion shaft seal











## GRADES AND PROPERTIES

### AFLAS Compounds (FEPM)

### M100

AFLAS	HKTP 5760	C	57	1.55	70	+3	18.0	300	2.0	25	O-rings/Molded Shapes / Extrusion
	HKTP 5770	C	57	1.58	90	+3	21.0	250	7.5	25	O-rings/Molded Shapes / Extrusion
	HKTP 5780	C	57	1.62	100	+3	22.0	160	12.0	25	O-rings/Molded Shapes / Extrusion
	HKTP 5790	C	57	1.65	120	+3	23.0	120	16.0	25	O-rings/Molded Shapes / Extrusion

Curing Conditions : Press Cure: 170°C x 20/min / Oven Cure 200°C x 4 hrs / C = Compound / CS @ 200°C x 70 hrs

### Perfluoroelastomer (FFKM)

AFLAS	KKC 5075	C	>72	2	75	-2	16.0	170	260	20	O-rings/Molded Shapes
	KKC 5891	C	>72	2	75	-2	15.0	160	260	30	O-rings/Molded Shapes
	KKC 6074	C	>72	2	75	-2	16.0	150	300	25	O-rings/Molded Shapes
	KKC 6425	C	>72	2	75	-2	17.0	160	325	15	O-rings/Molded Shapes

Curing Conditions : Press Cure: 170°C x 10 min / Oven Cure 200°C x 4 hrs / HR = Heat Resistance (°C) / CS @ 200°C x 70 hrs

### Grade

#### AFLAS® 100S/100H

- Main applications
- Sealing material
- Oil seal
- Packer element
- ESP protective coverings

#### AFLAS® 150E/150P

- Main applications
- Wire and cable insulation
- Tube
- Sealing material

#### AFLAS® 600X

- Main applications
- Sealing material

#### AFLAS® 400E

- Main applications
- For extrusion processing
- Wire and cable insulation
- Tube

#### AFLAS® 150CS/150C

- Main applications
- Wire and cable insulation
- Heat-shrink tube
- Resin improvement material

### Grade

#### AFLAS® PM-1100

- Main applications
- Chemical processing industry
- Oil and gas industry

#### AFLAS® PM-3000

- Main applications
- Chemical processing industry
- Oil and gas industry
- Sealing for semiconductor manufacturing equipment

#### AFLAS® CP-4000

- Main applications
- Chemical processing industry
- Oil and gas industry
- Sealing for semiconductor manufacturing equipment

## AJE MERCANTILE PVT. LTD.

406, Rainbow Chambers, Poinsur, S. V. Road, Kandivali (W), Mumbai - 400 067. (India)

Cell : 09320142795 (Mitul) Tel.: +91-22-28652307 / 28612795

Email : ajempl@gmail.com / info@dynafluon.com

### GRADES AND PROPERTIES

		Grade	Test Compound	%F	S.G.	MV**	TR10	Tensile (Mpa)	Elong %	100% Modulus	CS*	Application
<b>Bisphenol Curable Grade</b>												
COPOLYMER		HKA 6614	IV	66	1.80	45	-18	16.2	180	6.5	12	O-ring
		HKA 6615	IV	66	1.80	55	-18	16.0	200	6.0	15	O-ring
		HKA 6616	IV	66	1.80	60	-18	16.2	180	6.5	12	O-ring
		HKA 6621	IV	66	1.80	20	-18	13.0	200	5.5	15	Molded Shapes / O-rings/Injection and transfer molding
		HKA 6623	IV	66	1.80	60	-18	16.2	225	7.0	20	Molded Shapes / O-rings
		HKA 6624	IV	66	1.80	40	-18	14.0	180	7.0	15	Molded Shapes / O-rings
		HKA 6630	IV	66	1.80	30	-18	15.0	260	5.0	20	Extruded Shapes / Hoses
		HKA 6631	IV	66	1.80	28	-18	13.0	260	5.0	20	Complex Molded Shapes
		HKA 6632	VI	66	1.80	40	-18	7.5	275	3.0	20	Low Hardness Moulded Shapes
		HKA 6633	IV	66	1.80	40	-18	15.0	250	5.0	20	Extruded & Molded Shapes
		HKA 6634	IV	66	1.80	65	-18	18.0	260	6.0	20	Molded Shapes / O-rings
		HKA 6636	IV	66	1.80	30	-18	13.0	300	4.0	20	Extruded & Molded Shapes
		HKA 6640	IV	66	1.80	25	-18	15.0	280	3.5	20	Metal Bonding & Seals
		HKA 6641	IV	66	1.80	30	-18	13.0	270	4.5	24	Metal Bonding & Seals
		HKA 6644	IV	66	1.80	40	-18	15.0	300	3.5	17	Metal Bonding & Seals
		HKA 6654	IV	66	1.80	45	-18	15.7	250	5.0	15	Molded Shapes (Calendering)
	HKA 6671	IV	66	1.80	25	-18	13.0	250	5.5	20	Molded Shapes (Injection)	
	HKA 6610	IV	67	1.82	60	-18	17.5	180	8.5	18	Molded Shapes/O-rings/High Physical Properties	
<b>Low Post Cure Grade</b>												
		HKA 6614LP	IV	66	1.80	60	-18	14.5	180	6.0	15	O-rings
		HKA 6644LP	IV	66	1.80	42	-18	15.0	260	3.5	20	Metal Bonding & Seals
TERPOLYMER		HKB 6810	III	68	1.84	90	-13	16.5	200	6.0	20	O-rings for CNG Application
		HKB 6814	IV	68	1.86	60	-13	15.0	200	6.0	20	O-rings
		HKB 6824	III	68	1.84	70	-13	16.0	200	6.0	20	O-rings - AED Resistant
		HKB 6831	IV	68	1.84	50	-13	15.0	250	4.5	36	Molded Shapes / O-Rings
		HKB 6840	IV	68	1.86	60	-13	14.8	200	6.0	22	Metal Bonding & Seals
		HKB 6841	V	68	1.86	40	-13	12.4	350	3.2	35	Metal Bonding & Seals
		HKB 6850	IV	68	1.84	90	-13	14.0	230	4.5	22	Diaphragms for CNG Application
		HKB 6926	IV	69	1.87	25	-12	13.2	270	4.0	30	Extruded Shapes / Hoses
		HKB 6958	IV	69	1.87	40	-12	12.0	340	2.5	28	O-rings/Molded Shapes / Extrusion
<b>Diamine Curable Grade</b>												
CP <sup>a</sup>		HKB 6844	I	68	1.86	50	-13	17.0	260	4.5	66	Bonded Seals / Molded Shapes

\* Compression Set ASTM D395 Method B ( 70 hrs @ 200°C ) \*\* Mooney Viscosity ( ML1+10 @ 121°C ) a CP = Copolymer / TP = Terpolymer

Curing Conditions : Press Cure: 170°C x 10min Post Cure: 230°C x 24 hrs # Press Cure: 170°C x 10min Post Cure: 250°C x 2 hrs ## Press Cure: 170°C x 10min Post Cure: 200°C x 4 hrs

### GRADES AND PROPERTIES

	Grade	Test Compound	%F	S.G.	MV**	TR10	Tensile (Mpa)	Elong %	100% Modulus	CS*	Application							
<b>Peroxide Curable Grade ##</b>																		
CP	HKBP 6620	II	66	1.80	35	-19	21.0	430	2.0	37	Molded Shapes / O-rings							
	HKBP 6920	II	69	1.89	50	-6	18.0	200	6.0	25	Molded Shapes / O-rings							
TP	HKBP 6940	II	69	1.88	40	-6	19.0	250	5.0	30	Turbo Hose							
	HKBP 7020	II	70	1.90	55	-6	19.8	250	6.0	28	Molded Shapes / O-rings							
<b>Low Temperature Grade</b>																		
TP	HKLT 6625	II	66	1.82	55	-25	18.0	260	3.5	18	Molded Shapes / O-rings							
	HKLT 6530	II	65	1.79	50	-30	18.0	250	3.3	20	Molded Shapes / O-rings							
	HKLT 6540	II	65	1.85	40	-40	15.0	170	3.0	20	Molded Shapes / O-rings							
<b>Tetrafluoroethylene / Propylene (FEPM) M100</b>																		
CP	HKTP 5760	C	57	1.55	70	+3	18.0	300	2.0	25	O-rings/Molded Shapes / Extrusion							
	HKTP 5770	C	57	1.58	90	+3	21.0	250	7.5	25	O-rings/Molded Shapes / Extrusion							
	HKTP 5780	C	57	1.62	100	+3	22.0	160	12.0	25	O-rings/Molded Shapes / Extrusion							
	HKTP 5790	C	57	1.65	120	+3	23.0	120	16.0	25	O-rings/Molded Shapes / Extrusion							
Curing Conditions : Press Cure: 170°C x 20 min / Oven Cure 200°C x 4 hrs / C = Compound / CS @ 200°C x 70 hrs																		
<b>Perfluoroelastomer (FFKM)</b>																		
					H													
						HR												
CP	KKC 5075	C	>72	2	75	-2	16.0	170	260	20	O-rings/Molded Shapes							
	KKC 5891	C	>72	2	75	-2	15.0	160	260	30	O-rings/Molded Shapes							
	KKC 6074	C	>72	2	75	-2	16.0	150	300	25	O-rings/Molded Shapes							
	KKC 6425	C	>72	2	75	-2	17.0	160	325	15	O-rings/Molded Shapes							
Curing Conditions : Press Cure: 170°C x 10 min / Oven Cure 200°C x 4 hrs / HR = Heat Resistance (°C) / CS @ 200°C x 70 hrs																		
<b>Fluorosilicone (FVMQ)</b>																		
					H													
						TEAR												
CP	FKA 9930	C	-	1.42	30	-55	8.0	300	20	12	O-rings/Molded Shapes / Extrusion							
	FKA 9940	C	-	1.42	40	-55	9.0	280	25	12	O-rings/Molded Shapes / Extrusion							
	FKA 9950	C	-	1.46	50	-55	9.0	280	25	15	O-rings/Molded Shapes / Extrusion							
	FKA 9960	C	-	1.48	60	-55	9.5	280	22	15	O-rings/Molded Shapes / Extrusion							
	FKA 9970	C	-	1.49	70	-55	9.0	260	20	15	O-rings/Molded Shapes / Extrusion							
	FKA 9980	C	-	1.50	80	-55	8.0	180	18	16	O-rings/Molded Shapes / Extrusion							
Curing Conditions : Press Cure: 170°C x 10 min / Oven Cure 200°C x 4 hrs / H = Hardness / CS @ 177°C x 22 hrs																		
Test Compound							I		II		III		IV		V		VI	
Polymer							100		100		100		100		100		100	
MTBlack <sup>1</sup>							20		20		20		30		30		1	
MgO <sup>2</sup>											3		3		6		3	
Ca(OH) <sub>2</sub> <sup>3</sup>											6		6				6	
MgO (Low activity) <sup>4</sup>							15											
Diamine <sup>5</sup>							3											
TAIC <sup>6</sup>									3									
Peroxide <sup>7</sup>									3									
ZnO <sup>8</sup>									3									
Material							Trade Name											
1 MTBlack							N-990											
2 Magnesiumoxide							Elastomag 170											
3 CalciumHydroxide							HPGrade											
4 Magnesium oxide							Low Activity 50											
5 Diamine							N,N'-dicinnamylidene-1,6-hexanediamine											
6 TAIC							Triallyl isocyanurate (100% active)											
7 Peroxide							αα-bis (t-butylperoxy)											
8 ZnO							Zinc Oxide											



# Dynamix

[www.dynamixcompound.com](http://www.dynamixcompound.com)

## Product Range

Hydrogenated Nitrile Rubber (HNBR) Compound

Dynasil Fluorosilicone & Silicone Compounds

Perfluoroelastomer (FFKM) Compound

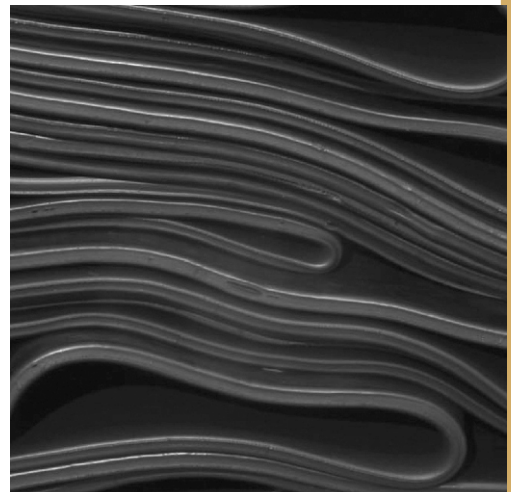
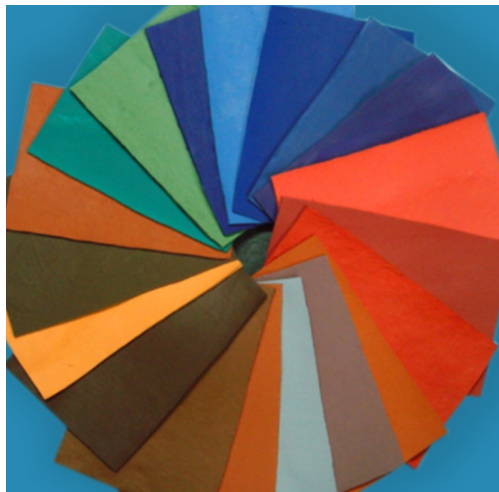
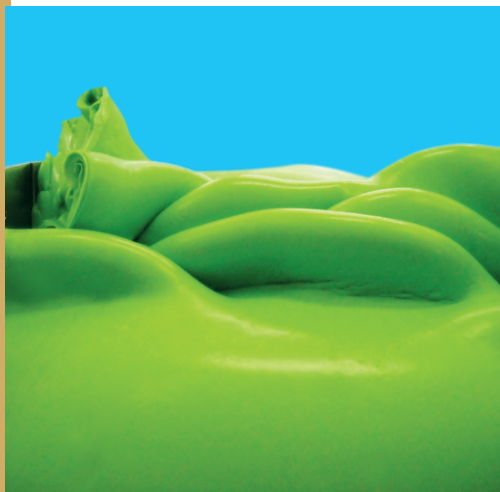
Dynamix Fluoroelastomer (FKM) Compound

Tetrafluoroethylene / Propylene (AFLAS<sup>®</sup>) Compound

AEM, ACM, ECO Compounds as per specification and application

Colours Master Batches & Pigment Dispersion

Additives for Silicone Elastomer Compound



**DYNAMIX OFFERS TECHNICAL SERVICES TO DEVELOP FORMULATIONS & READY TO USE COMPOUNDS AS PER END USER SPECIFICATIONS FOR FLUROELASTOMER, PERFLUROELASTOMER, FLUROASILICONE, AFLAS<sup>®</sup>, SILICONE (VMQ / PVMQ), HYDROGENATED NITRILE BUTADIENE RUBBER (HNBR), ACM, AEM ETC. OUR RANGE INCLUDES SPECIALISED COMPOUNDS FOR OIL & GAS APPLICATIONS AND CHEMICAL PROCESSING PLANTS. CUSTOMER DATA AND INFORMATION CONFIDENTIALITY ARE STRICTLY MAINTAINED. CUSTOM MIXING IS OFFERED AS PER CUSTOMER FORMULATION UNDER NON-DISCLOSURE AGREEMENT.**

## Dynamix

406, Rainbow Chambers, Painsur, S.V.Road, Kandivali (W), Mumbai – 400067, India

Tel.: +91-22-28652307 • Fax : 91-22-28612795

Email: [info@dynamixcompound.com](mailto:info@dynamixcompound.com) / [ajempl@gmail.com](mailto:ajempl@gmail.com)

# Dynamix

FKM READY TO USE COMPOUND

## GRADES AND PROPERTIES

Grade	Specific Gravity	Hardness (±5)	Tensile Strength	Elongation at break	Compression Set 200 °C X 70 hrs	Heat Aging (250 °C X 70 hrs)		
						Tensile Change	Elongation Change	Hardness Change
Unit	gm/cm <sup>3</sup>	Shore A	Kg/cm <sup>2</sup>	%	%	%	%	Points
Test Method	ASTM D 792	ASTM D 2240	ASTM D 412	ASTM D 412	ASTM D 395 B	ASTM D 573		
<b>O'RING APPLICATION</b>								
HKC O 60	1.86	60	100	225	13	-5	-7	+1
HKC O 70	1.86	70	130	200	15	-5	-3	0
HKC O 80	1.86	80	130	180	18	-2	-2	+1
HKC O 90	1.86	90	130	150	20	-1	-2	+1
HKTC O 70	1.89	70	140	220	20	-2	-2	+1
HKTC O 80	1.89	80	140	200	22	-2	-3	+1
<b>OIL SEAL APPLICATION</b>								
HKC BS 60	1.86	60	100	275	18	-6	-4	+1
HKC BS 70	1.86	70	130	250	20	-2	-5	+1
HKC BS 80	1.86	80	130	225	23	-7	-4	+3
HKTC BS 70	1.89	70	130	300	30	-3	-5	+1
HKTC BS 80	1.89	80	130	275	32	-5	-6	+2
<b>GENERAL MOULDING APPLICATION</b>								
HKC M 60	1.86	60	100	260	18	-6	-7	+1
HKC M 70	1.86	70	130	240	20	-7	-5	+1
HKC M 80	1.86	80	130	220	22	-5	-6	+1
HKC M 90	1.86	90	135	180	25	-5	-7	+1
<b>EXTRUDED PRODUCT APPLICATION</b>								
HKC E 70	1.86	70	110	225	23	-5	-5	+1
HKC E 80	1.86	80	120	200	25	-4	-6	+1
<b>GASOLINE AND ETHENOL APPLICATION</b>								
HKC 70 GE	1.87	70	120	200	20	-3	-4	+1
HKC 80 GE	1.87	80	120	180	23	-2	-3	+1
<b>LOW HARDNESS MOULDING APPLICATION</b>								
HKC 50	1.87	50	75	275	18	-	-	-
<b>OIL &amp; GAS APPLICATION</b>								
HKC O 70 OG	1.87	70	160	200	18	-	-	-
HKC O 80 OG	1.87	80	170	180	20	-	-	-
<b>CNG &amp; LPG APPLICATION</b>					<b>#CNG TEST</b>	<b>APPLICATION</b>		
HKCNG C 60	1.87	60	105	230	20	Diaphragms		
HKCNG C 70	1.87	70	140	200	20			
HKCNG O 70	1.87	70	140	200	18	O-Ring		
HKCNG O 80	1.87	80	140	180	18			
<b>#CNG IMMERSION TEST : CNG at room temperature and 20MPa pressure for 70 hr (Change in Volume)</b>								

Curing Conditions : Press Cure : 170 °C X 10 min. /Post Cure : 230 °C X 24 hrs

Compounds are designed to suite Compression, Transfer and Injection moulding. Above compounds are standard compounds, can be designed as per customers specification. Colour compounds are available as per specification and colour. Special Compounds for low post curing time are available on request. Compounds also available in unvulcanised cord form.