



DAI-EL Fluoroelastomers Product Portfolio

Raw Gum Bisphenol COPOLYMERS^a

DAI-EL grade	Features & applications	Compression molding	Transfer molding	Injection molding	Extrusion calendering	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)	Specific gravity
G-7100EBP	Base polymer for highly filled compounds. Blends with higher polymer Mooney			■		66	10	-18	1,81
G-7200BP	General purpose grade. Best mold flowability			■		66	20	-18	1,81
G-7210BP	General purpose grade with easier handling on mill rolls			■	■	66	20	-18	1,81
G-7320BP	Best roll handling calendering and extrusion		■	■	■	66	30	-18	1,81
G-7300EBP	Base polymer grade complies with FDA 177.2600		■	■		66	30	-18	1,81
G-7400BP	General purpose grade. Excellent compression set	■	■	■		66	40	-18	1,81
G-7800BP	Best compression set combined with good mold flowability	■				66	80	-18	1,81

Raw Gum Bisphenol TERPOLYMERS^a

DAI-EL grade	Features & applications	Compression molding	Transfer molding	Injection molding	Extrusion calendering	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)	Specific gravity
G-607BP	Improved low temperature flexibility	■	■	■		67	30	-21	1,81
G-556BP	Extrusion grade with good balance of fluid resistance	■	■		■	69	16	-14	1,85
G-684BP	General purpose with good flowability	■	■	■		70	40	-8	1,85
G-621BP	Compression and Extrusion grade. Highest fuel resistance	■	■		■	71	50	-5	1,88

Bisphenol Cure Incorporated COPOLYMERS

DAI-EL grade	Features & applications	Compression molding	Transfer molding	Injection molding	Extrusion calendering	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)	Hardness Shore A (after 3 s)	Tensile strength (MPa)	Elongation (%)	100% Modulus (MPa)	C.set 70 hrs at 200°C (%)
G-7251	General purpose grade. Best mold flowability			■		66	22	-18	70	14	210	4,5	11
G-7261	Same as G-7251 with easier handling on mill rolls			■	■	66	22	-18	70	14	210	4,4	13
G-7262	Lower cure density of G-7261 for complex shapes			■	■	66	22	-18	65	14	270	2,7	15
G-704	General purpose grade		■		■	66	30	-18	65	16	230	3,9	22
G-7371	Best roll handling calendering and extrusion		■	■	■	66	34	-18	65	15	200	4,1	11
G-7373	Faster version of G-7371		■	■	■	66	34	-18	65	15	210	4,1	11
G-7351 E	General purpose grade		■	■		66	35	-18	67	15	210	4,6	14
G-7451	Excellent compression set	■	■	■		66	40	-18	70	15	200	4,5	10
G-7452	Lower cure density of G-7451	■	■	■		66	40	-18	65	15	270	2,9	12
G-7851	Best compression set combined with good mold flowability	■				66	67	-18	70	16	200	4,5	9
G-7853	Faster version of G-7851	■				66	67	-18	70	16	210	4,1	9

Bisphenol Cure Incorporated Terpolymers

DAI-EL grade	Features & applications	Compression molding	Transfer molding	Injection molding	Extrusion calendering	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)	Hardness Shore A (after 3 s)	Tensile strength (MPa)	Elongation (%)	100% Modulus (MPa)	C.set 70 hrs at 200°C (%)
G-671	Low temperature flexibility	■	■			66	35	-20	70	15	200	4,4	19
G-558 ^b	Excellent extrusion				■	69	35	-14	60	12	320	2,6	28
G-686	General purpose with good flowability	■	■	■		70	34	-8	70	14	250	3,5	18
G-621	Excellent fuel and chemical resistance	■			■	71	56	-6	70	16	300	3,8	29

^a Other information for Base Polymer (gum) properties on technical data sheet.

^b Special Bisphenol compound -see table of recipes

Test compound recipes

	Bisphenol cured compounds	^b Special Bisphenol compounds	Peroxide cured compounds	Low temperature terpolymers
Polymer	100	100	100	100
Carbon black N990	20		20	20
Carbon black N772		13		
MgO	3	3		
Ca(OH)2	6	6		
Peroxide ¹ , 50% Active			3	3
TAIC ² , 75% Active			5,4	4

Press cure	170°C x 10min	160°C x 45min	160°C x 10min	160°C x 10min
Oven cure	230°C x 24h	230°C x 24h (for c.set)	180°C x 4h	180°C x 4h

¹: 2,5-dimethyl-2,5 di-(t-butylperoxy)hexane

²: Triallylisocyanurate

Peroxide COPOLYMERS

DAI-EL grade	Features & applications	Compression molding	Transfer molding	Injection molding	Extrusion calendering	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)	Hardness Shore A (after 3 s)	Tensile strength (MPa)	Elongation (%)	100% Modulus (MPa)	C.set 70 hrs at 200°C (%)
G-8002 L	Excellent mold flowability. Blends with other peroxide grades.			■	■	66	15	-20	67	22	290	3,5	25
G-8002	Good mold flowability			■	■	66	25	-20	66	21	360	2,8	32

Peroxide TERPOLYMERS

DAI-EL grade	Features & applications	Compression molding	Transfer molding	Injection molding	Extrusion calendering	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)	Hardness Shore A (after 3 s)	Tensile strength (MPa)	Elongation (%)	100% Modulus (MPa)	C.set 70 hrs at 200°C (%)
G-962	Good balance of low temperature properties and chemical resistance		■	■		67	27	-19	67	22	260	4	19
G-964	Good balance of low temperature properties and chemical resistance	■	■	■		67	48	-19	67	25	300	3,7	23
G-952	Improved chemical resistance	■	■	■		69	40	-13	64	24	330	2,4	20
G-902	Chemical resistance, flex fatigue resistance, low fuel permeation		■		■	71	19	-8	70	20	320	2,9	28
G-922	Good mold flowability			■		71	25	-8	69	20	200	5,6	11
G-925	Good mold flowability			■		71	43	-8	69	21	220	5,0	20
G-901	Chemical resistance, flex fatigue resistance, low fuel permeation				■	71	48	-8	70	22	350	2,7	32
G-912	Low compression set with high modulus	■	■			71	58	-8	74	19	170	6 ,5	16

Low Temperature Peroxide TERPOLYMERS

DAI-EL grade	Features & applications	Compression molding	Transfer molding	Injection molding	Extrusion calendering	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)	Hardness Shore A (after 3 s)	Tensile strength (MPa)	Elongation (%)	100% Modulus (MPa)	C.set 70 hrs at 200°C (%)
LT-304	Superior heat and compression set resistance versus LT-302			■	■	65	26	-30	63	14	210	3,3	16
LT-302	Excellent low temperature sealing	■	■			65	44	-30	62	17	270	2,8	25
LT-252	Good balance of low temperature and fluid resistance	■	■			66	20	-25	63	16	250	2,4	30

BRE Base Resistant Elastomer

DAI-EL grade	Features & applications	Compression molding	Transfer molding	Injection molding	Extrusion calendering	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)	Hardness Shore A (after 3 s)	Tensile strength (MPa)	Elongation (%)	100% Modulus (MPa)	C.set 70 hrs at 200°C (%)
GBR 6002	Good resistance to amines, bases, hydrocarbons, low temperature			■	■	62	25	-12	60	22	500	2	24
GBR 6005	Suitable for O&G applications	■	■			62	55	-12	60	21	530	2,2	29

Non-Curing liquid COPOLYMER

DAI-EL grade	Features & applications	Fluorine content (% wt)	ML ₁₊₁₀ (121°C)	TR10 (°C)
G-101	Viscosity modifier	66	5cp at 60 °C	-18

Fluorine content & features

Properties	Fluorine content	
	High	Low
Curing properties (except peroxide cure type)		Better
Compression set (except peroxide cure type)		Better
Low temperature properties		Better
Oil resistance	Better	
Chemical resistance	Better	
Corrosion resistance	Better	

DAI-EL PERFLUOR

Raw gum	Features & applications	ML ₁₊₁₀ (100°C)	Specific gravity	TR10 (°C)	Temp range	Full-Compound	
GA-15	- POx cure system - Low temperature flexibility - Cleanness same as FKM	25	2,0	-20	-15°C to 200°C	GA-05	- No fillers - Transparent
						GA-55	- MTC filled - Black compound
						GA-65	- BaSO₄ SiO₂ filled - White compound
GA-105	- POx cure system - Good mechanical properties - Excellent chemical and solvent resistance - High level of cleanness - Suitable for semiconductor applications	65	2,0	-2	RT to 200°C	GA-2557501	MTC filled
GA-500	- Imidazole cure - High level of cleanness - Better resistance to steam, amine than triazine cure type - Suitable for semiconductor applications	80 (ML ₁₊₂₀ @170°C)	2	-3	RT to 300°C	GA-5508002	MTC filled Black compound

DAI-EL Fluoroelastomers: Orientation Map

FKM family		%F	Bisphenol cure Best heat & comp set resistance		Peroxide cure Chemical resistance	
			Extrusion	Injection & Compression	Extrusion	Injection & Compression
Copolymers		66%	G-704 G-7261 G-7451	G-7000 series, G-300 series: Low viscosity grades (several precompounds)	G-8002 G-8002L	
Terpolymers	66% - 67%	G-671	G-962			
	68% - 69%	G-558 G-565	G-592			
	70% - 71%	G-621	G-686 (G-684BP)	G-901 G-902 G-903	G-922 G-925 G-912	
LT Low Temperature	65% (TR10 = -30°C)	LT-302		LT-304		
	66% (TR10 = -25°C)	LT-252				
BRE Base Resistance	62%			GBR-6002 GBR-6005		
Special grades		Diamin cureable terpolymer: G-501NK Non-curing liquid copolymer: G-101				
F-TPV Thermoplastic elastomers	Dynamic vul- canisation types	SV-1020 SV-1032				

Property comparison of Fluoroelastomers with other rubbers

	Fluoro-elastomer FKM	Silicone Rubber MQ, VMQ	Acrylic Rubber ACM	Nitrile Rubber NBR	Ethylene Propylene Rubber EPDM
Specific gravity (raw gum)	1.8 ~ 2.0	1.0	1.0	1.0	0.9
Heat Resistance	★★★	★★★	★★★★	★★★	★★★★
Low Temperature Resistance	★★★	★★★	★★★★	★★★	★★★
Electrical Properties	★★★★	★★★★	★★★	★★★	★★★
Solvent Resistance	★★★	★★★	★★★★	★★★	★★★★
Flame Resistance	★★★	★★★★	★★	★★	★★
Ozone Resistance	★★★	★★★	★★★	★	★★★
Steam Resistance	★★★	★★★★	★	★★★	★★★★
Acid Resistance	★★★	★★★★	★★★	★★★★	★★★
Oil Resistance	★★★	★★★	★★★★	★★★★	★
Permeability Resistance	★★★	★★	★★★★	★★★★	★★★

ISO Certification

Daikin Chemical France, Daikin Chemical Europe, Daikin Industries Ltd and Daikin America Inc have obtained ISO 14001 environmental management system registration and ISO 9001 quality system registration.

ISO 14001: 2004 is a standard established by the International Organization for Standardization which applies to environmental preservation activities. Activities, products and services of our Fluorochemicals plants have been certified as being environmentally sound by an internationally recognized body.

ISO 9001: 2008 is a certification system for quality control established by the International Organization for Standardization which certifies our quality control system, including all activities related to the design, manufacture and delivery of our products.

Important Notice

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Medical Use

This product is not specifically designed or manufactured for use in implantable medical and/ or dental devices. We have not tested it for such application and will only sell it for such use pursuant to contract containing specific terms and conditions required by us.

Trademarks

DAI-EL is a trademark of Daikin Industries Ltd.

Fluoroelastomer expertise

Daikin offers the most complete portfolio of Fluoroelastomers products in the world today. From low Mooney materials to high performance peroxide curable products, Daikin FKM technologies are designed to perform in a broad range of demanding service and processing environments.

When you choose DAI-EL, you select the highest quality Fluoroelastomer products. And you join our growing family of satisfied customers who benefit from excellent support of new applications development. Daikin is continuously striving to develop newer and better Fluoroelastomer technologies, and provide outstanding technical support for customers worldwide.

Technical support

Daikin provides extensive technical support in all major markets: automotive, aerospace, chemical and petrochemical industries.

Our technical assistance facilities are designed to support the needs of our customers in these dynamic markets.

Daikin Chemical Europe Innovation Center



Daikin Chemical Europe Innovation Center opened its doors in 2021. The 2000 m² dedicated laboratory and office building is situated in the Phoenix West Technology Park in Dortmund, Germany. With its offices, laboratories, warehouse and conference rooms, the building is designed to foster cooperation between teams and the exchange of knowledge: In addition to R&D, this includes marketing (identifying new focus areas for Daikin and enabling future growth) and technical services (supporting and expanding existing materials) with strong interaction with the sales function.

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