CARDINAL

Cable Compounds That Power Performance

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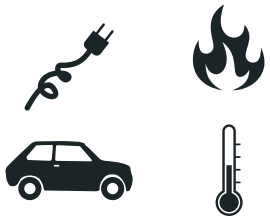
Cable Compounding Solutions

INNOVATIVE INSULATION

Insulation compounds ensure electrical safety and stable performance across a wide temperature range. Developed for strength, flame resistance and ease of processing, they comply with key norms for power, telecom and automotive cables.

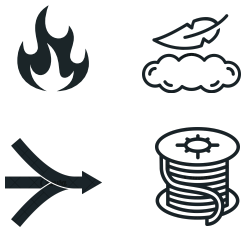


DURABLE SHEATHING

Sheathing compounds protect cables from mechanical damage, chemicals and harsh conditions. Specialized grades support flame-retardant, oil-resistant and extreme temperature use, delivering long-term durability in tough environments.

RELIABLE BEDDING

Bedding compounds enhance cable structure and production efficiency. Developed for even filling and co-extrusion, they improve consistency and strength in multi-core designs, supporting stable, high-quality cable builds.



SECURE CONNECTORS

Flexible and durable compounds designed for precision moulding of plugs and connectors. Suitable for overmoulding, with options for semi-rigid, flame-retardant and phthalate-free applications meeting safety requirements.

PVC Cable Compounds Overview

INSULATION COMPOUNDS

General Purposes: Reliable compounds meeting core industry standards.

CODE	PROPERTIES	STANDARDS	DENSITY ISO 1183 g/cm3	HARDNESS ISO 868 Shore A
GCI-88	general purposes	IEC 60502-1 PVC/A / EN 50363-3 TI1	1.36	88
GCYI1-90	general purposes	VDE 0207-4 TYPE YI1	1.54	92
GCTI1-90	UV resistant	EN 50363-3 TI1	1.55	91
GCDIV4-90	general purposes	HD 603 DIV4 / IEC 60502-1 PVC/A	1.49	91
GCGVT-90	insulation and sheath	HD 603 DIV4 / I EC 60502-1 PVC/A HD 603 DMV5 / IEC 60502-1 ST1, ST2	1.43	90
GCYI3-95	general purposes	VDE 0207-4 TYPE YI3	1.33	96
GCYI7-90	general purposes	VDE 0207-4 TYPE YI7	1.47	91
GCTEL1-90	telephone cable insulation	VDE 0207-4 TYPE YI1, YI2 & YI3	1.36	90

Flame-Retardant Insulation: Industry compliant solutions designed to enhance safety with reduced flammability.

CODE	PROPERTIES	STANDARDS	DENSITY ISO 1183 g/cm3	HARDNESS ISO 868 Shore A
GCR2-88	flame retardant	CEI EN 50363-0 R2	1.4	88
GCR2LT-90	flame retardant, low temperatures	CEI EN 50363-0 R2	1.54	91

Extreme Temperatures Insulation: Specialized compounds formulated for performance across a wide thermal range.

CODE	PROPERTIES	STANDARDS	DENSITY ISO 1183 g/cm3	HARDNESS ISO 868 Shore A
GCI105-95	high temperatures 105°C	IEC 60227 PVC/E	1.35	96
GCTI3-90	high temperatures 90°C	EN 50363-3 TI3	1.45	92
GCTI54-95	low temperatures, heavy duty detonator cables	EN 13763 / VDE 0207-4 YI3	1.33	93
GCTI4-80	low temperatures (-40°C)	EN 50363-3 TI4	1.38	78
GCTI5-88	flexible, low temperatures	EN 50363-3 TI5	1.4	88
GCTI-1-88	medium cross-sections power cables -40°C to 80°C	EN 50525-2-31	1.43	88

Automotive Cables: High-performance insulation meeting ISO 19642 for temperature classes B (up to 100°C) and C (up to 125°C), suitable for various wire cross-sections and battery cables.

CODE	PROPERTIES	STANDARDS	DENSITY ISO 1183 g/cm3	HARDNESS ISO 868 Shore A
GCT2-88	temperature class rating B (T2) -40°C to 100°C	ISO 19642	1.31	88
GCT2-1-95	small cross-sections insulated wire -40°C to 105 °C	ISO 19642	1.35	94
GCT2-2-95	small cross-sections insulated wire -40°C to 105 °C	ISO 19642	1.37	95
GCT2-3-90	medium cross-sections insulated wire -40°C to 105 °C	ISO 19642	1.38	92
GCT2-4-85	Insulated wires for battery cables -40°C to 105 °C	ISO 19642	1.39	84
GCT3-90	Temperature class rating C (T3) -40°C to 125°C	ISO 19642	1.32	89
GCT3-1-95	Small cross-sections insulated wire -40°C to 125 °C	ISO 19642	1.36	94

SHEATHING COMPOUNDS

General Purpose Sheathing: Versatile sheathing compounds meeting main industry standards.

CODE	PROPERTIES	CLASSIFICATION	DENSITY ISO 1183 g/cm3	HARDNESS ISO 868 Shore A
GCTM1-90	general purposes	EN 50363-4-1 TM1 / IEC 60502-1 ST1	1.55	92
GCTM1UV-90	general purposes, UV resistant	EN 50363-4-1 TM1 / IEC 60502-1 ST1	1.55	92
GCYM2-80	flexible sheath	EN 50363-4-1 TM2	1.45	80
GCDMV5-90	general purposes	HD 603 DMV5	1.52	91
GCDMV18-90	general purposes 90°C	HD 603 DMV18 / IEC 60502-1 ST2 IEC 60092-360 ST2	1.54	90
GCF-70	general purposes	EN 50363-4-1 TM1, TM2	1.29	71
GCF-75	general purposes	EN 50363-4-1 TM1, TM2	1.42	76
GCGVT-90	general purposes insulation & sheath	HD 603 DIV4 / IEC 60502-1 PVC/A HD 603 DMV5 / IEC 60502-1 ST1, ST2	1.43	90
GCMAD8-90	AD8 application water resistant	EN 50363-4-1 TM1	1.45	91
GCMA-90	anti-static (light colored) sheath	EN 50363-4-1 TM1 / IEC 60502-1 ST1	1.34	90
GCUTP5/6-88	UTP network cable sheathing (cat. 5/6)	IEC 61156-5	1.38	87

Anti-Rodent / Anti-Termites: Protective sheathing that deters pests.

CODE	PROPERTIES	CLASSIFICATION	DENSITY ISO 1183 g/cm3	HARDNESS ISO 868 Shore A
GCAR/T-90	anti-rodent / anti-termites	EN 50363-4-1 TM1	1.55	92

Fire Safe Sheathing: Compounds for flame-retardant and low-smoke cables.

CODE	PROPERTIES	CLASSIFICATION	DENSITY ISO 1183 g/cm3	HARDNESS ISO 868 Shore A
GCRZ-90	FRLS cables (HCl ≤17%)	CEI 20-11 RZ, R12	1.55	92
GCMF-90	flame retardant	EN 50363-4-1 TM1	1.55	90
GCMFHR-90	flame retardant, hydrocarbon resistant	EN 50363-4-1 TM1 / EN 50363-4-1 TM5	1.49	92
GCDMV6F-90	general purposes 90°C, flame retardant	HD 603 DMV6 / IEC 60502-1 ST2 IEC 60092-360 ST2	1.49	91
GCTM5F-90	mineral oil resistant, flexible, flame retardant	EN 50363-4-1 TM5	1.44	92
GCFRLT-85	flame retardant & low temperatures	EN 50363-4-1 TM4 / EN 50363-4-2 TM6	1.45	84

Extreme Temperatures Sheathing: Formulations for performance in extreme thermal conditions.

CODE	PROPERTIES	CLASSIFICATION	DENSITY g/cm3	HARDNESS Shore A
GCTM3-95	high temperatures 90°C	EN 50363-4-1 TM3	1.35	94
GCMAD8R-90	AD8 application, 90°C	EN 50363-4-1 TM1 / HD 603 DMV18	1.46	91
GCM50-75	low temperatures (-50°C)	EN 50363-4-2 TM6	1.31	74
GCM40-80	low temperatures (-40°C)	EN 50363-4-1 TM4 / EN 50363-4-2 TM6	1.42	81

Hydrocarbon Resistant: Compounds designed to maintain integrity when exposed to hydrocarbons.

CODE	PROPERTIES	CLASSIFICATION	DENSITY g/cm3	HARDNESS Shore A
GCTM5-85	mineral oil resistant, flexible	EN 50363-4-1 TM5	1.36	84
GCTM5-90	mineral oil resistant	EN 50363-4-1 TM5	1.26	88
GCTM6R-80	mineral oil & low temperatures	EN 50363-4-1 TM5 / EN 50363-4-2 TM6	1.33	81
GCTM5HD-88	mineral oil resistant, flexible heavy duty	EN 50363-4-1 TM5 / EN 50290-2-22 TM55	1.26	88
GCST2OR-88	hydrocarbon resistant (Y801)	IEC 60502-1 ST2	1.36	88

Transparent Sheathing: Clear compounds for sheathing and covering.

CODE	USE	CLASSIFICATION	DENSITY g/cm3	HARDNESS Shore A
GFA-75	transparent sheath	EN 50363-4-1 TM2	1.19	75
GFA-80	transparent sheath	IEC 60502-1 ST2	1.21	81
GCTM6-65OT	low temperatures (-40°C), transparent covering	EN 50363-4-2 TM6	1.16	68

BEDDING COMPOUNDS

General Purpose Bedding: Standard bedding compounds for co-extrusion applications.

CODE	USE	CLASSIFICATION	DENSITY g/cm3	HARDNESS Shore A
GCU-40	soft central filler	drumable / co-extrusion	1.41	43
GCU-55	soft central filler	drumable / co-extrusion	1.7	63
GCU-70	general purpose bedding	co-extrusion	1.76	70
GCU-80	general purpose bedding	co-extrusion	1.82	82

Flame Retardant Bedding: Compounds for enhanced fire safety properties, including low migration to XLPE.

CODE	USE	CLASSIFICATION	DENSITY g/cm3	HARDNESS Shore A
GCU-80FR	flame retardant bedding	co-extrusion	1.85	82
GCU-90FR	flame retardant bedding, low migration on XLPE	co-extrusion	1.88	91

CONNECTOR COMPOUNDS

General Purpose Plugs: Injection compounds for flexible cable plugs.

CODE	USE	CLASSIFICATION	DENSITY g/cm3	HARDNESS Shore A
GCYM2-80	general purpose plugs for flexible cables	EN 50363-4-1 TM2 injection moulding	1.36	80
GCF-70	highly flexible plugs	injection moulding	1.29	73
GCF-75	flexible plugs	injection moulding	1.42	76

SRPVC Plugs: Compounds designed for Semi-Rigid PVC plug applications.

CODE	USE	CLASSIFICATION	DENSITY g/cm3	HARDNESS Shore A
GCF-95	SRPVC plugs	injection moulding	1.34	93
GICF-95	flame retardant SRPVC, phthalate-free, for overmoulded connectors on low frequency communication cables	UL 1581 - 50.183 injection moulding	1.33	94

Shape the Future of Cable Performance

Looking to upgrade to Cardinal compounds or launch a new cable? We're here to help.
Join customers across Eastern Europe who trust Cardinal compounds every day.

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Important Notice to Customers
Customers are responsible for evaluating the suitability of Cardinal products in their own manufacturing conditions and final applications, especially concerning health, safety and environmental impact.
Cardinal can provide technical guidance, but product use must always align with applicable laws, regulations and best practices in each location. Users are responsible for compliance with all relevant laws and for validating product suitability in their processes.
Material Safety Data Sheets (MSDS) and technical documentation (TDS) should be reviewed before handling or processing our compounds.
Values shown in this brochure are typical and based on laboratory testing of extruded samples or pressed plates. They are indicative only and not legally binding. Cardinal cannot be held liable for results derived from processes outside our control.

Storage and Handling
Store indoors in dry conditions between 5°C and 35°C, away from direct sunlight.
Condition materials for at least 24 hours at ambient temperature before processing.
Shelf life: 12 months under proper storage conditions.
Note: Improper storage such as exposure to moisture, heat or direct sunlight, can compromise compound quality and performance. Always follow recommended guidelines.