



C-Flex – Highly Flexible and Durable Power Connections

Creative. Precise. Convincing..

PROMET 



1

Maximum flexibility

thanks to fine copper fins that can be bent and twisted without any problems

2

Maximum security

through durable, homogeneous insulation – available in PVC or halogen-free versions

3

Space-saving installation

through minimal bending radius and short connections

C-Flex

Technology that impresses.



C-Flex consists of several highly conductive copper strips (Cu-HCP), either tin-plated or bare, in strip thicknesses from 0.5 to 1.0 mm. The flexible design enables reliable connection – even under extreme conditions.

The special insulation provides lasting protection and ensures long-lasting, stress-free operation.

C-Flex is more than just flexible.

The innovative copper busbar from Promet sets new standards in terms of connection quality, efficiency, and adaptability. Whether in control cabinets, transformers, or complex busbar systems, **C-Flex is your smart solution for compact, safe, and heavy-duty connections.**



Efficient & economical

Reduces installation effort and material consumption

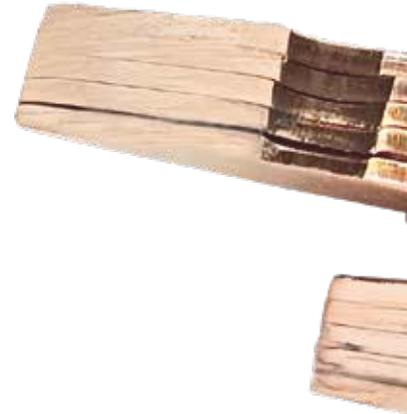


Certified & tested

according to UL/CSA guidelines

More than just flexible.

Customized for your application.



Our flexible conductor rails are as individual as your application – **cut to size, bent, twisted, perforated,** or provided with **slotted holes.**

On request, we can supply them with welded or tacked connections, with individual imprints, logos, or lettering, and packaged exactly to your specifications.

C-Flex means maximum adaptability with the highest quality.

Thanks to state-of-the-art manufacturing technologies and decades of experience, we offer solutions that are powerful, easy to install, and future-proof—perfectly suited to your application.

Safety and Installation Requirements for Accessories in Distribution Panels



Field installable accessories shall be provided with markings or instructions that indicate the following provisions shall be addressed during installation:

- a) Panelboard accessories may not be field installed in the wiring space of the enclosure panelboard unless the conductors, splices, taps and equipment at any cross section of the wiring space does not exceed 75 percent of the cross-sectional area of that space;
- b) Accessories shall not block enclosure ventilation openings; and
- c) Accessories shall not block the breaker arc vents.



**cut to size,
bent, twisted**



**punched or
with slotted holes**



plus

with welded or stapled
connections

plus

with custom
printing

plus

Packaged according to
customer specifications

Characteristics

C-Flex plus+

Our C-FLEX busbars in the C-Flex plus+ version meet all the requirements for electrical installations in the various fields of application in industry.

With the specially developed insulation of our copper busbars, we have taken a big step towards safety in various applications in electrical installations. Due to the low-smoke, non-toxic, halogen-free and fire-resistant properties of the insulation, we guarantee more safety

for people, less damage to your electrical installations and less impact on the environment.

Our product complies with both UL® 94-V0 and German federal railway (Deutsche Bahn) EN 45545-2:2013+A1:2015 (R22, R23/HL1, HL2, HL3)

- + Thin laminate made of high-quality electrolytic copper Cu-HCP blank
- + Comprehensive portfolio from 125 A to 2800 A
- + Insulated with a special sheathing that is halogen-free, flame-retardant and low-smoke.
Very environmentally friendly and recyclable
- + High flexibility, easy to bend, fold or twist
- + Saving of cross-section compared to cables with regard to current load
- + No cable lug required
- + Shortened installation times
- + Possibility of compact design due to narrow bending radii compared to cables
- + Traceability and other, relevant data are on the product
- + UL approved according to UL 94-V0
- + Each rail 100% tension tested
- + RoHs and REACH compliant

Insulation properties

- + Halogen-free (according to IEC 61249-2-21)
- + Comply with railway applications
- + Not flammable drip down
- + Environmentally friendly and recyclable
- + Flammability classification UL® 94-V0
- + Low smoke: FR2-serie to ISO 5659-2 tested
- + Smoke, toxicity classes and acid classification FR2-serie to NF X 70-100-2 tested for the railway standard (norm)
- + highly flexible
- + RoHs and REACH compliant

C-Flex plus+

Conductor

Material	Cu-HCP blank
Lamella thickness	0.5 - 1.0 mm
Structural strength	220-260 N/mm ² (R220)
Electr. Conductivity	57-59 S x m/mm ²

Insulation

Electr. Conductivity	UL® 94-VO
Color	black (other colours on request)
Thickness	1.5 - 2.0 mm
Dielectric strength	20 kV/mm according to DIN EN 60243-1 : 2014-01
Elongation	550%
Operating temperature	-50°C to +115°C (-58 to 239 °F)
Operating voltage max.	UL/CSA/IEC: 1.000 VAC; 1.500 VDC
Betriebsspannung max.	UL/CSA/IEC: 1.000 VAC; 1.500 VDC

Dimensions

Length	2000 mm (Standard) variable lengths von 250 - 3000 mm on request
Width	9 - 120 mm

Norms & standards

QM certification	ISO 9001
Environmental management	ISO 14001
Hardness	DIN ISO 7619-1
Density	DIN EN ISO 1183-1
Tensile strength	DIN 53504/ISO 37
Elongation at break	DIN 53504/ISO 37
Tear strength	ISO 34-1 Method B (b) (Graves)
DVR/CS 72h/23°	DIN ISO 815-1 Method A
DVR/CS 72h/70°	DIN ISO 815-1 Method A
Glow wire test	IEC 60695-2-12:2014
max. operating voltage	EN 50264-3-1
Halogen-free	according IEC 61249-2-21
Flammability	EN 5545-2:2013+A1:2015 (R22, R23/HL1, HL2, HL3)
Low smoke	FR2-serie according ISO 5659-2

Characteristics

C-Flex Basic

Our C-Flex busbars in the **C-Flex basic** version with high-quality, special PVC insulation are the ideal conductor for electrical connections in a wide range of applications in industrial plants and power distribution systems. The self-extinguishing insulation guarantees

excellent electrical insulation even in damp or aggressive environments with high temperatures.

Our product complies with both the UL® 94-V0 standard and RoHS.

- + Thin strips made of high-quality electrolytic copper Cu-HCP
- + Comprehensive portfolio from 125 A to 2800 A
- + Insulated with high-quality special PVC insulation, self-extinguishing and recyclable
- + High flexibility, easy to bend, fold or twist
- + Cross-section savings compared to cables in terms of current load
- + No cable lug required
- + Reduced installation times
- + Compact design possible thanks to tight bending radii compared to cables
- + Traceability and other relevant data are provided on the product
- + UL 94-V0 compliant
- + Each rail is 100% voltage tested
- + RoHs compliant

Insulation properties

- + Self-extinguishing, non-burning dripping
- + Recyclable
- + Flammability class: UL® 94-V0
- + High flexibility
- + RoHs compliant

C-Flex Basic

Conductor

Material	Cu-HCP blank
Lamella thickness	0.5 - 1.0 mm
Structural strength	220-260 N/mm ² (R220)
Electr. Conductivity	57-59 S x m/mm ²

Insulation

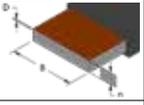
Material	PVC
Electr. Conductivity	UL® 94-VO
Color	black
Thickness	1.5 - 2.0 mm
Elongation	20 kV/mm according to DIN EN 60243-1 : 2014-01
Operating temperature	370%
Operating voltage max.	-40°C to +105°C (-40 to 221 °F)
Betriebsspannung max.	IEC: 1.000 VAC; 1.500 VDC (UL 600 VAC/750 VDC)

Dimensions

Length	2000 mm (Standard) variable lengths von 250 - 3000 mm on request
Width	9 - 120 mm

Norms & standards

QM certification	ISO 9001
Environmental management	ISO 14001
Hardness	DIN ISO 7619-1
Density	DIN EN ISO 1183-1
Tensile strength	DIN 53504/ISO 37
Elongation at break	DIN 53504/ISO 37
Tear strength	ISO 34-1 Method B (b) (Graves)
DVR/CS 72h/23°	DIN ISO 815-1 Method A
DVR/CS 72h/70°	DIN ISO 815-1 Method A
Glow wire test	IEC 60695-2-12:2014
max. operating voltage	EN 50264-3-1

Current load values for		Ø	Heating at ambient temperature 35°C [A]			packaging unit	C-Flex plus+	C-Flex basic
			auf 105°C ΔT = 70K	auf 85°C ΔT = 50K	auf 65°C ΔT = 30K			
ΔT = 50K	n x B x D	mm ²				Stück		
125 A	3 x 9 x 0.8	21.6	158	134	104	10	●	*
	6 x 9 x 0.8	43.2	290	245	190	10	●	*
	3 x 13 x 0.5	19.5	198	167	130	10	●	*
250 A	9 x 9 x 0.8	64.8	314	265	206	10	●	*
	4 x 16 x 0.8	51.2	380	320	248	5	●	*
	2 x 20 x 1	40	326	275	214	5	●	*
	3 x 20 x 1	60	428	360	280	5	●	*
	2 x 24 x 1	48	450	380	295	5	●	*
400 A	6 x 16 x 0.8	76.8	476	402	318	5	●	*
	10 x 16 x 0.8	128	538	455	352	3	●	*
	4 x 20 x 1	80	476	402	312	5	●	*
	5 x 20 x 1	100	498	420	326	3	●	*
	6 x 20 x 1	120	546	462	358	3	●	*
	3 x 24 x 1	72	490	413	320	5	●	*
	4 x 24 x 1	96	550	465	360	3	●	*
	2 x 32 x 1	64	480	406	315	5	●	*
	3 x 32 x 1	96	570	480	372	3	●	*
	5 x 24 x 1	120	608	514	398	3	●	*
	6 x 24 x 1	144	670	566	438	3	●	*
	4 x 32 x 1	128	648	548	425	3	●	*
	4 x 40 x 1	160	727	615	476	3	●	*
630 A	10 x 20 x 1	200	762	645	500	3	●	*
	8 x 24 x 1	192	802	678	525	3	●	*
	5 x 32 x 1	160	758	640	496	3	●	*
	6 x 32 x 1	192	846	715	555	3	●	*
	5 x 40 x 1	200	900	760	590	3	●	*
800 A	10 x 24 x 1	240	948	800	592	3	●	*
	8 x 32 x 1	256	1018	860	667	3	●	*
	5 x 50 x 1	250	1100	930	718	3	●	*
1000 A	10 x 32 x 1	320	1230	1040	805	3	●	*
	8 x 40 x 1	320	1230	1040	805	3	●	*
	10 x 40 x 1	400	1400	1181	915	1	●	*
	8 x 50 x 1	400	1393	1175	912	1	●	*
	5 x 63 x 1	315	1220	1030	797	1	●	*
	6 x 63 x 1	378	1437	1215	941	1	●	*
	4 x 80 x 1	320	1200	1015	785	1	●	*
	5 x 80 x 1	400	1390	1175	910	1	●	*
1250 A	10 x 50 x 1	500	1650	1395	1080	1	●	*
	8 x 63 x 1	504	1650	1395	1080	1	●	*
	6 x 80 x 1	480	1627	1375	1065	1	●	*
	5 x 100 x 1	500	1635	1385	1070	1	●	*
1600 A	10 x 63 x 1	630	1895	1600	1240	1	●	*
	8 x 80 x 1	640	1895	1600	1240	1	●	*
	10 x 80 x 1	800	2100	1775	1375	1	●	*
	8 x 100 x 1	800	2147	1815	1405	1	●	*
	10 x 100 x 1	1000	2350	1985	1535	1	●	*
2000 A	10 x 120 x 1	1200	2755	2330	1792	1	●	*

* only on request

Fully automated production

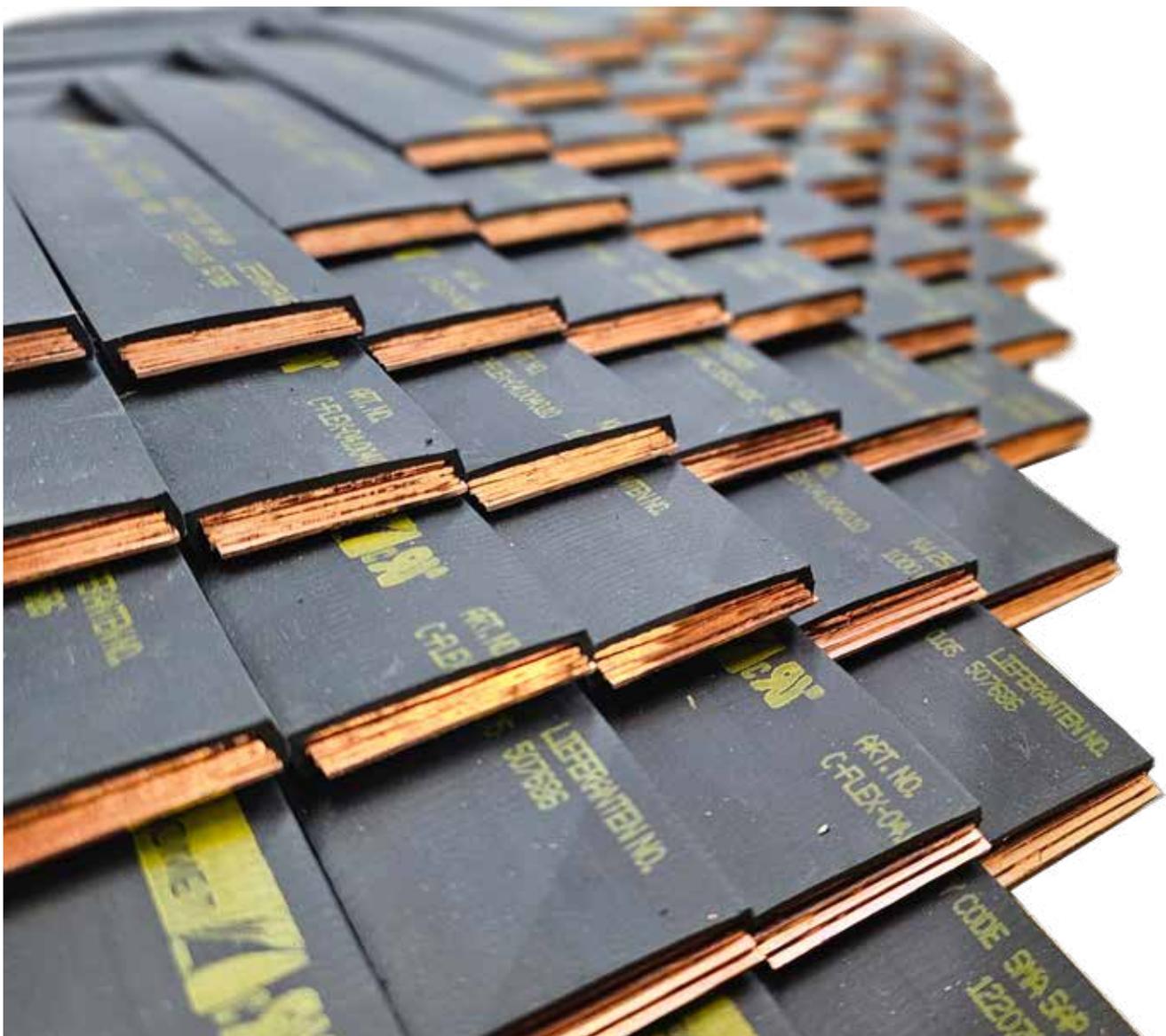
Series production at the highest level

How we achieve this: we manufacture in-house – right from the start, to the highest standards, fully automatically and ready for series production.

Our modern production line ensures that every product is manufactured with the same precision and quality – piece by piece, series by series. This allows us to maintain full control over quality and delivery dates

at all times, while responding quickly and flexibly to individual customer and market requirements.

Thanks to state-of-the-art manufacturing technology and a highly qualified team, we guarantee our customers the consistently high Promet quality standard – reliably, efficiently and in series.





As a strategic partner, we accompany our customers from the initial idea to perfect implementation – efficiently, innovatively and always one step ahead. Take advantage of our expertise! Contact us now – we look forward to hearing from you!

Promet AG Switzerland

Promet AG
Gähwilerstrasse 56
CH-9533 Kirchberg SG

+41 71 923 25 25

info@promet.com

Promet GmbH Germany

Promet GmbH
Neugablonzer Strasse 11
DE-93073 Neutraubling BY

+49 9401 912 8646

info@promet.com



We are here for you.
Personal, reliable and solution-oriented.