Features

- The material has a minimum electrical conductivity of 101% IACS (International Annealed Copper Standard), making it one of the most conductive materials available.
- Excellent Thermal Conductivity, it exhibits (around 391-401 W/m·K), making it highly effective in heat transfer applications
- Immunity to Hydrogen Embrittlement due to its virtually non-existent oxygen content.
- Excellent formability and impact strength, allowing for shaping and forming operations.
- Good Corrosion Resistance
- C101 is highly suitable for soldering, brazing, and various welding processes (using shielded arc methods).

RS PRO C101 Copper Coil W:50MM X T:0.127MM X LM:176M (10KG)

RS Stock No: 0748079



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Copper Coils

Product Description

RS PRO C101 Copper Coil

RS PRO C101 Copper Coil is a high-purity, oxygen-free electronic (OFE) grade material, renowned for its exceptional electrical and thermal performance. It is primarily valued for its exceptional electrical and thermal performance. C101 is the purest commercially available copper, typically possessing a minimum copper content of 99.99% and an oxygen content of less than 0.0005% (5 ppm).

Key Features

- ***Electronics:*** *High-frequency connectors, wave guides, microwave equipment, and lead wires for circuit breakers.*
- ***High-Vacuum Systems:*** *UHV components and scientific apparatus due to its low outgassing properties.*
- ***Thermal Management:*** *Heat sinks for diodes and rectifiers, and cryogenic systems.*
- ***Power Distribution:*** *Motor and generator windings, bus bars, and transformer coils.*
- ***Audio/Visual:*** *High-end audio/visual wiring where signal clarity is paramount.*

Typical Applications

C101 copper coil is used in demanding and specialized applications where quality and reliability are paramount:

- ***Electronics:*** *Used in advanced electronics, high-frequency circuitry, and inductive components.*
- ***Energy Systems:*** *Essential for power storage, battery collector applications, and low-loss energy transfer.*
- ***Aerospace & Medical:*** *Utilized in aerospace systems, medical imaging equipment, and EMI (electromagnetic interference) shielding layers.*
- ***Cryogenics:*** *Its thermal stability makes it suitable for use in cryogenic heat exchangers and superconducting magnet leads.*

General Specifications

Material	Copper C101
Form	Coil
Metres	176M (10KG)
Grade	C101
Colour	Yellow / Orange

Copper Coils

Mechanical Properties

Proof Stress	50-340 MPa
Tensile Strength	200 – 400 MPa depending on temper
Density	8.96g/c**m³**
Melting Point	1083**°C**
Thermal Conductivity	391.1 W/m·K
Boiling Point	2562 °C

Similar Products

RS Code	Width	Thickness/Guage	Length	Weight
0748058	25MM	0.05MM	446M	5KG
0748059	25MM	0.05MM	892M	10KG
0748060	25MM	0.05MM	2232M	25KG
0748062	50MM	0.05MM	223M	5KG
0748063	50MM	0.05MM	446M	10KG
0748064	50MM	0.05MM	1116M	25KG
0748065	75MM	0.05MM	149M	5KG
0748066	75MM	0.05MM	298M	10KG
0748067	75MM	0.05MM	744M	25KG
0748068	100MM	0.05MM	111M	5KG
0748069	100MM	0.05MM	222M	10KG
0748124	100MM	0.05MM	558M	25KG
0748125	200MM	0.05MM	59M	5KG
0748126	200MM	0.05MM	118M	10KG
0748127	200MM	0.05MM	279M	25KG
0748128	25MM	0.075MM	297M	5KG
0748129	25MM	0.075MM	594M	10KG
0748130	25MM	0.075MM	1488M	25KG
RS Code	**Width**	**Thickness/Guage**	**Length**	**Weight**
0748131	50MM	0.075MM	148M	5KG
0748132	50MM	0.075MM	296M	10KG
0748133	50MM	0.075MM	744M	25KG
0748135	75MM	0.075MM	99M	5KG
0748136	75MM	0.075MM	198M	10KG
0748137	75MM	0.075MM	496M	25KG
0748138	100MM	0.075MM	74M	5KG
0748139	100MM	0.075MM	148M	10KG

Copper Coils

0748141	100MM	0.075MM	372M	25KG
0748142	200MM	0.075MM	37M	5KG
0748143	200MM	0.075MM	74M	10KG
0748144	200MM	0.075MM	186M	25KG
0748145	25MM	0.1MM	223M	5KG
0748146	25MM	0.1MM	446M	10KG
0748147	25MM	0.1MM	1116M	25KG
0748148	50MM	0.1MM	112M	5KG
0748149	50MM	0.1MM	224M	10KG
0748150	50MM	0.1MM	558M	25KG
0748151	75MM	0.1MM	74M	5KG
0748152	75MM	0.1MM	148M	10KG
0748153	75MM	0.1MM	372M	25KG
0748154	100MM	0.1MM	56M	5KG
0748155	100MM	0.1MM	112M	10KG
0748070	100MM	0.1MM	279M	25KG
0748071	200MM	0.1MM	28M	5KG
0748072	200MM	0.1MM	56M	10KG
0748073	200MM	0.1MM	139M	25KG
0748074	25MM	0.127MM	175M	5KG
0748075	25MM	0.127MM	350M	10KG
0748076	25MM	0.127MM	877M	25KG
0748078	50MM	0.127MM	88M	5KG
0748079	50MM	0.127MM	176M	10KG
0748080	50MM	0.127MM	419M	25KG
0748081	75MM	0.127MM	58M	5KG
0748082	75MM	0.127MM	116M	10KG
0748084	75MM	0.127MM	290M	25KG
0748085	100MM	0.127MM	44M	5KG
0748086	100MM	0.127MM	88M	10KG
0748087	100MM	0.127MM	219M	25KG
0748088	200MM	0.127MM	22M	5KG
0748089	200MM	0.127MM	44M	10KG
RS Code	**Width**	**Thickness/Guage**	**Length**	**Weight**
0748090	200MM	0.127MM	109M	25KG
0748091	25MM	0.2MM	111M	5KG
0748092	25MM	0.2MM	222M	10KG
0748093	25MM	0.2MM	558M	25KG
0748094	50MM	0.2MM	56M	5KG
0748095	50MM	0.2MM	112M	10KG
0748096	50MM	0.2MM	279M	25KG
0748097	75MM	0.2MM	37M	5KG

Copper Coils

0748098	75MM	0.2MM	74M	10KG
0748100	75MM	0.2MM	186M	25KG
0748157	100MM	0.2MM	28M	5KG
0748158	100MM	0.2MM	56M	10KG
0748159	100MM	0.2MM	140M	25KG
0748160	200MM	0.2MM	14M	5KG
0748161	200MM	0.2MM	28M	10KG
0748163	200MM	0.2MM	70M	25KG
0748164	25MM	0.25MM	89M	5KG
0748165	25MM	0.25MM	178M	10KG
0748166	25MM	0.25MM	446M	25KG
0748167	50MM	0.25MM	45M	5KG
0748168	50MM	0.25MM	90M	10KG
0748169	50MM	0.25MM	223M	25KG
0748170	75MM	0.25MM	30M	5KG
0748171	75MM	0.25MM	60M	10KG
0748172	75MM	0.25MM	149M	25KG
0748173	100MM	0.25MM	22M	5KG
0748174	100MM	0.25MM	44M	10KG
0748175	100MM	0.25MM	112M	25KG
0748176	200MM	0.25MM	11M	5KG
0748177	200MM	0.25MM	22M	10KG
0748179	200MM	0.25MM	28M	25KG
0748180	25MM	0.3MM	74M	5KG
0748181	25MM	0.3MM	148M	10KG
0748182	25MM	0.3MM	372M	25KG
0748183	50MM	0.3MM	37M	5KG
0748185	50MM	0.3MM	74M	10KG
0748186	50MM	0.3MM	186M	25KG
0748187	75MM	0.3MM	25M	5KG
0748188	75MM	0.3MM	50M	10KG
0748189	75MM	0.3MM	124M	25KG
0748101	100MM	0.3MM	19M	5KG
RS Code	**Width**	**Thickness/Guage**	**Length**	**Weight**
0748102	100MM	0.3MM	38M	10KG
0748103	100MM	0.3MM	93M	25KG
0748104	200MM	0.3MM	9M	5KG
0748105	200MM	0.3MM	18M	10KG
0748107	200MM	0.3MM	47M	25KG
0748108	25MM	0.4MM	56M	5KG
0748109	25MM	0.4MM	112M	10KG
0748110	25MM	0.4MM	2799M	25KG

Copper Coils

0748111	50MM	0.4MM	28M	5KG
0748113	50MM	0.4MM	56M	10KG
0748114	50MM	0.4MM	140M	25KG
0748115	75MM	0.4MM	19M	5KG
0748116	75MM	0.4MM	38M	10KG
0748117	75MM	0.4MM	93M	25KG
0748118	100MM	0.4MM	14M	5KG
0748119	100MM	0.4MM	28M	10KG
0748120	100MM	0.4MM	70M	25KG
0748121	200MM	0.4MM	7M	5KG
0748122	200MM	0.4MM	14M	10KG
0748123	200MM	0.4MM	35M	25KG