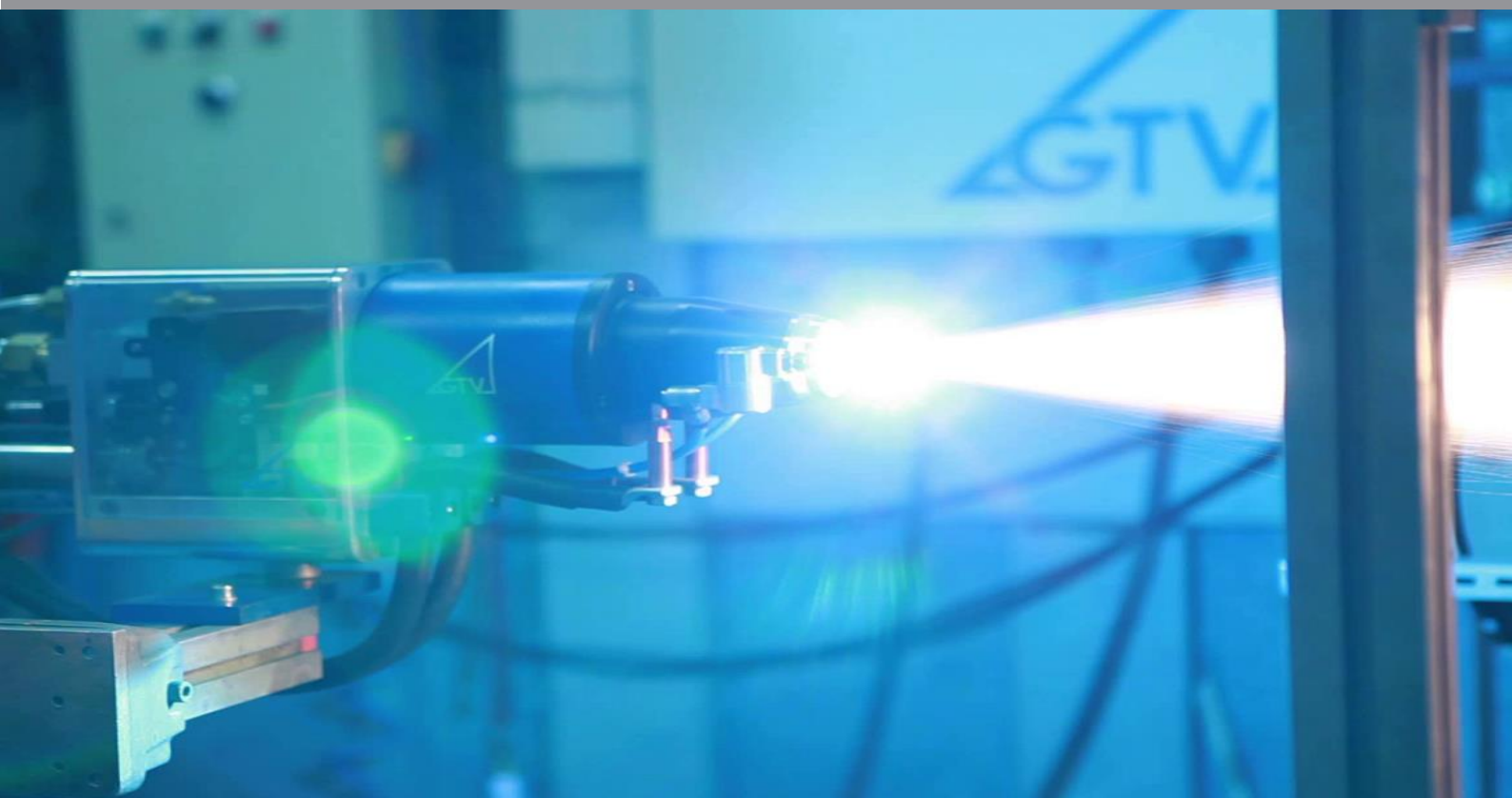


# GTV SPRAY WIRE CATALOGUE 2014

in accordance with DIN EN ISO 14919



# GTV SPRAY WIRE CATALOGUE 2014

## APPLICATION AREAS

- overhaul / repair
- wear protection
- corrosion protection
- bond coats

The third constituent (behind the second dot) of the GTV article number indicates the wire diameter:

1. 2.3 mm
2. 1/8", 3.17 mm
3. 4 mm
4. 3/16", 4.75 mm
5. 2.5 mm
6. 1/16", 1.6 mm
7. 2 mm
8. 1 mm
9. 3 mm

## GTV Verschleißschutz GmbH

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# GTV SPRAY WIRE CATALOGUE 2014

## ALUMINIUM BASED MATERIALS

GTV article no.	Description	Al	Si
50.11.	aluminium 95%	99	-
50.28.	aluminium silicon 88/12	88	12

### CHARACTERISTICS / APPLICATION AREAS

#### 50.11.

- repair of aluminium and magnesium based alloys
- corrosion protection application from pH 5 - 8.3
- applicable for temperatures up to approx. 500 °C
- hardness: 25 - 30 HB

#### 50.28.

- repair of aluminium and magnesium based alloys
- corrosion protection application from pH 5 - 8.3
- hardness: 35 - 40 HB

## MOLYBDENUM BASED MATERIALS

GTV article no.	Description	Mo
50.07.	molybdenum	> 99.5

### CHARACTERISTICS / APPLICATION AREAS

#### 50.07.

- high resistance to all wear mechanisms, especially adhesive wear, with excellent sliding properties
- self-bonding due to high particle temperature and chemical reactivity
- coating hardness: 60 HRC
- applicable for temperatures up to approx. 320 °C
- not oxidation-resistant in air

# GTV SPRAY WIRE CATALOGUE 2014

## IRON BASED MATERIALS I

GTV article no.	Description	C	Mn	Si	Cr	Mo	Fe
50.30.	0.01 % C-steel	0.01	2	1	-	-	balance
50.18.	0.1 % C-steel	0.1	0.5	-	-	-	balance
50.32.	0.3 % C-steel CrMo4	0.3	0.8	0.2	1	0.2	balance
50.17.	0.4 % C-steel	0.4	0.5	0.2	-	-	balance
50.13.	0.8 % C-steel	0.8	0.5	0.2	-	-	balance
50.14.	1.0 % C-steel	1.0	0.3	0.3	1.5	-	balance

## CHARACTERISTICS / APPLICATION AREAS

### 50.30.

- machinable steel for repair and build-up
- hardness: 20 HRC

### 50.32.

- machinable steel for repair and build-up
- engine block repair, internal coating of cylinders
- hardness: 35 - 40 HRC

### 50.13.

- machinable steel for repair and build-up
- engine block repair, internal coating of cylinders
- hardness: 50 HRC

### 50.18.

- machinable steel for repair and build-up
- hardness: 30 HRC

### 50.17

- machinable steel for repair and build-up
- hardness: 40 HRC

### 50.14.

- grindable steel for repair and build-up
- hardness: 62 HRC

## IRON BASED MATERIALS II

GTV article no.	Description	C	Mn	Si	Cr	Mo	Ni	Al	Fe
50.02.	13 % Cr-steel	-	0.5	0.3	12.5	-	-	-	balance
50.62.	17 % Cr-steel	-	< 1	0.5	15 - 17	1	-	-	balance
50.05.	18/8-steel	-	7	0.8	18.5	-	8	-	balance
50.01.	20/10-steel	-	1.7	0.5	20	-	10	-	balance
50.04.	CrNiMoMn-steel	-	1.7	0.9	18.5	2.6	12.2	-	balance
50.67.	FeCrAl-steel „AlCro“	-	-	-	20	-	-	5	balance

## CHARACTERISTICS / APPLICATION AREAS

### 50.02.

- machinable steel for repair and build-up
- hardness: 52 HRC
- oxidation-resistant

### 50.05.

- machinable austenitic steel for repair and build-up
- high corrosion resistance in various media
- hardness: 30 - 35 HRC

### 50.04.

- machinable austenitic steel for repair and build-up
- high corrosion resistance in various media
- hardness: 32 HRC

### 50.62.

- machinable steel for repair and build-up
- hardness: 55 HRC
- oxidation-resistant

### 50.01.

- machinable austenitic steel for repair and build-up
- high corrosion resistance in various media
- hardness: 35 HRC

### 50.67.

- corrosion protection of boiler- and exhaust pipes
- particularly suitable in sulphurous environment
- applicable for temperatures up to approx. 500 °C

## COPPER BASED MATERIALS

GTV article no.	Description	Al	Mn	Sn	Zn	Cu
50.12.	copper 99%	-	-	-	-	> 99.8
51.06.	aluminium-bronze 94/6	7.7	0.22	-	-	balance
50.15.	CuSn 94/6	-	-	6 - 7	-	balance
50.16.	CuSn 88/12	-	-	11 - 12	-	balance
50.22.	CuZn 60/40	-	-	-	37	balance

## CHARACTERISTICS / APPLICATION AREAS

### 50.12.

- high electrical and thermal conductivity
- repair of parts made of copper based alloys
- hardness: 35 - 40 HB

### 50.15.

- bearing material featuring excellent gliding and dry-running operation properties
- repair of parts made of copper based alloys
- hardness: 60 - 65 HB
- applicable for temperatures up to approx. 230 °C

### 50.22.

- bearing material featuring excellent gliding and dry-running operation properties
- repair of parts made of copper based alloys
- decorative applications
- coating hardness: 70 - 80 HB

### 51.06.

- bearing material featuring excellent gliding and dry-running operation properties
- repair of parts made of copper based alloys
- hardness: 60 - 65 HB
- applicable for temperatures up to approx. 230 °C

### 50.16.

- bearing material featuring excellent gliding and dry-running operation properties
- repair of parts made of copper based alloys
- hardness: 65 - 75 HB
- applicable for temperatures up to approx. 230 °C

## NICKEL BASED MATERIALS

GTV article no.	Description	Al	Fe	Mn	Si	Ti	Cu	Cr	Ni
50.08.	nickel	-	-	-	-	-	-	-	> 99
50.00.6	Ni/Al 95/5	4.7	-	0.15	-	-	-	-	balance
52.00.2	Ni/Al 80/20 welded cored wire	20	-	-	-	-	-	-	balance
51.00.	Ni/Ti 96/4	-	-	0.4	0.3	3.5	-	-	balance
50.21.	Ni/Cu 65/35	-	1.5	0.1	-	-	33 - 35	5	balance
50.20.	Ni/Cr 80/20	-	-	-	-	-	-	20	balance
50.03.	Ni/Fe/Cr 60/25/15	-	25	-	-	-	-	15	balance

## CHARACTERISTICS / APPLICATION AREAS

### 50.08.

- machinable material for repair and build-up of nickel and nickel based alloys
- high temperature oxidation resistant and corrosion resistant in many media
- hardness: 55 - 60 HB

### 52.00.2

- machinable material for repair and build-up
- high resistance to all wear mechanisms
- high toughness and impact resistance
- corrosion resistant in many media
- „self-bonding“ due to chemical reactivity of the components
- hardness: 225 HB
- applicable for temperatures up to approx. 700 °C

### 50.21.

- machinable material for repair and build-up
- hardness: 50 HB
- applicable up to approx. 550 °C (oxidising atmosphere), up to approx. 600 °C (reducing atmosphere)

### 50.03.

- excellent bond coat material
- machinable material for repair and build-up
- high hot gas corrosion and oxidation resistance
- high corrosion resistance in various media
- hardness: 90 HB

### 50.00.6

- excellent bonding agent
- machinable material for repair and build-up
- repair of components made of nickel based alloys
- hardness: 70 HB
- applicable for temperatures up to approx. 800 °C

### 51.00.

- excellent bonding agent
- machinable material for repair and build-up
- repair of components made of nickel based alloys
- hardness: 75 - 85 HB
- applicable for temperatures up to approx. 800 °C

### 50.20.

- excellent bond coat material
- machinable material for repair and build-up
- high hot gas corrosion and oxidation resistance
- high corrosion resistance in various media
- hardness: 85 - 95 HB
- applicable for temperature up to approx. 980 °C

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## ZINC BASED MATERIALS

GTV article no.	Description	Al	Zn
50.10.	zinc 99%	-	> 99.99
50.19.	zinc / aluminium 85/15	15	balance

### CHARACTERISTICS / APPLICATION AREAS

#### 50.10.

- corrosion protection application from pH 7 - 12.5
- excellent bond coat material for polymers
- applicable for temperatures up to approx. 60 °C

#### 50.19.

- corrosion protection application from pH 5 - 7
- applicable for temperatures up to approx. 60 °C

## TIN BASED MATERIALS

GTV article no.	Description	Sb	Cu	Pb	Sn
50.70.	tin 99%	-	-	-	> 99
50.09.	tin-antimony (babbitt)	7.3	3.3	0.3	balance
50.69.	tin/copper 97/3	-	3 - 4	-	balance

### CHARACTERISTICS / APPLICATION AREAS

#### 50.70.

- bearing material featuring excellent gliding and dry-running operation properties

#### 50.09.

- bearing material featuring excellent gliding and dry-running operation properties

#### 50.69.

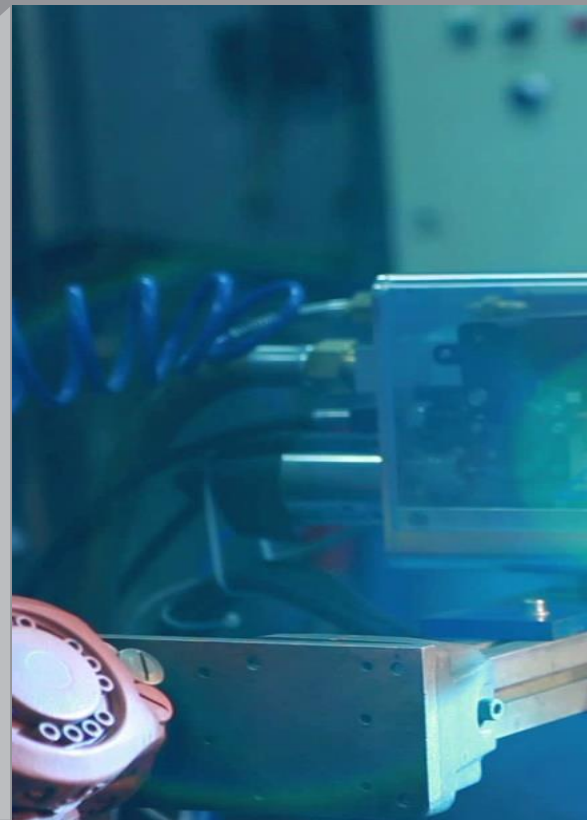
- repair material e.g. for antiques or cast metal
- solderable





Ever since the company was established in 1982, the name GTV has stood for top quality and a high level of delivery reliability for all types of thermal spray products.

GTV provides its customers with many years of experience in all aspects of the high-technology field of thermal spray technology, enabling them to make use of the effective and efficient GTV system solutions in order to gain a substantial competitive advantage in the market.



# GTV

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