

Art.no.	Description	Reference analysis	Wire-Ø [mm]	Packaging unit [kg]			Coating hardness (HV 0,3)	Melting point [°C]	Finishing treatment	Application areas
				Ring	Spool	Drum				
MD001	Zinc	Zn99,99	1,6-4,8	20	20	250	25	420	Paint	Corrosion protection E.g. in the field of wind power, machine / tank construction, shipping industry, as well as in electricity, port and water conservancy. Also tried and tested for all steel constructions in any size, as well as corrosion protection for small series parts. For the use of this material, it is important for the user that in case of damage of the sprayed coating the base material is not offended. This arises from the fact that zinc is anodic to iron.
MD002	Zinc-Aluminum	ZnAl15	2,0-4,8	25	20	250	35	450	Paint	Corrosion protection In industrial and seawater atmospheres higher resistance in SO ₂ containing atmosphere. This zinc-aluminum alloy is used similar to MD001, but also has the advantage that it provides an even better corrosion protection result due to 20% aluminum alloy. Moreover, some finer coatings can sprayed compared to pure zinc.
MD004	Aluminum	Al99,5	1,6-4,8	20	8	180	40	660	Paint	Corrosion protection Particularly in industrial and sea water atmospheres. Refractory bond coats up to 800 °C, scale resistant, diffusible coatings, e.g. for glowing grates, fireboxes, etc., as well as the safe use in the food sector according to DIN 8565. The purity of 99.5% of this wire allows the user to achieve the highest grades in the sprayed coatings with arc spray as well as with flame spray process. Highest bond strength of coatings from steel and iron by exothermic reaction are as well as of advantage as the comprehensive corrosion protection for extreme applications.
MD006	Aluminum-Magnesium	AlMg5	2,0-3,2	20	7	n.a.	40	630	Paint	Corrosion protection Very good suitable to seawater and weak alkaline solutions, as well as applications in the offshore sector.
MD009	Zinc	Zn99+					40-80	390		Zinc alloy for mold making

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MD010	Nickel basis	NiTi3	1,6	n.a.	10	n.a.	120	1450	Turning	<p>Bond coat, especially for arc spraying This bond coat wire was developed specifically for arc spraying. It surpasses in its adhesion and tensile strength all other OSUCAS preparation methods for this procedure. An example of this is the fact that it also adheres to clean metal surfaces in the workpiece preparation. It is also used as filler coating for a variety of repair purposes. Besides good wear protection (especially if this is accompanied by temperature stress and scaling), its excellent feature is to form an oxygen barrier, which is the best basis for the spraying of ceramics. With MD010 sprayed coatings offer good resistance to oxidation and thermal shock. Thanks to its high surface roughness, it forms the basis for the optimum interlocking of all spray materials.</p> <p>For easily machinable buildups with low carbon content in low-load bearing points. Also for building up of larger steel coatings, which are then finished with higher quality grades. MD020 is easily workable with normal tool steels.</p> <p>For medium-hard coatings on tight fits and bearing surfaces, slow or fast running shafts. To eliminate normal wear and tear also used as pseudo-alloy together with other OSUCAS wires. Machining with carbide and high-speed tools.</p> <p>A proven OSUCAS standard quality for even harder buildups as MD030; similarly usable. Still machinable with carbide, grinding is recommended.</p>
MD020	Steel	FeCMn	1,6-3,2	10	12,5	n.a.				
MD030	Steel	FeMn8Si2	1,6-3,2	10	12,5	n.a.	200-300	1510	Turning	
MD055	Steel	FeCMn	1,6-3,2	10	15	n.a.				

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MD060	Chrome steel (13%)	X46Cr13	1,6-3,2	10	15	n.a.	350-550	1480	Turning / Grinding	For hard, wear-resistant, low-corrosion steel coatings in the field of wear protection. This filler material is the most commonly used wire in the field of wear protection. Due to its hardness and high tensile strength this wire is used everywhere where high loads occur. The low shrinkage coefficient makes it possible that this material is applied up to 20 mm and more, without cracking of the coatings.
MD062	Chrome steel (17%)	X35CrMo17	1,6-3,2	10	15	n.a.	350-550	1480	Turning / Grinding	For hard, wear-resistant, low-corrosion steel coatings.
MD065	Carbon steel	110MnCrTi8	1,6-3,2	10	15	n.a.	300-500	1460	Grinding	For hard, wear-resistant steel coatings. Hardness comparable to MD060 but with a lower chromium content. By additional alloyed manganese usable for highly wear resistant and very hard coatings. Due to its very good adhesion even for the thinnest, very fine coatings ideally suited. Can replace flame sprayed molybdenum.
MD080	Steel Chrome-Nickel	FeCrNi	1,6-3,2	10	15	n.a.				According V2A. With appropriate sufficient thickness resistant to many acids. Is used e.g. for the repair of pumps, agitator shafts or plungers.
MD085	High-alloy steel Chrome-Nickel-Manganese	X15Cr18Ni8Mn7	1,6-3,2	10	15	n.a.	170-280	1510	Turning / Grinding	For good machinable, low-corrosion, abrasion-resistant steel coatings. Similar to MD080, but due to its high manganese content a work hardener, therefore wear and corrosion resistant. Especially suitable for spraying flat surfaces and holes - good turnable. Processing: Grinding is recommended.
MD095	High-alloy steel Chrome-Nickel	X5Cr17Ni12Mo2	1,6-3,2	10	15	n.a.	170-300	1510	Turning / Grinding	For good machinable, low-corrosion steel coatings. Similar to MD080, but with higher wear resistance. Processing: Grinding is recommended.
MD096	High-alloy steel Chrome-Aluminum	Cr25Al5					180-250	1500	Turning	Very good adhesion, non-scaling, good for sulfurous media. Resistant to corrosion until 900 °C.

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MD100	Molybdenum	Mo99,95	1,6-3,2	10	15	n.a.	200-600	2650	Grinding	Very good adhesion on aluminum and copper. OSUCAS Molybdenum has a purity of min. 99.9%. With flame spraying process MD100 is often used as a bond coat, since very good adhesion can be achieved without lengthy preparations. Its excellent emergency running properties and the avoiding of contact corrosion as well as good wear protection coatings are further advantages of this material. Processing: Grinding
MD110	Copper	Cu99,9	1,6-2,5	80	15	n.a.	60-150	1080	Turning	Good electrical and thermal conductivity, polishable coatings. A major field is the electrical industry - in particular for the production of electrically conductive coatings on non-conductors or for the production of copper electrodes for spark erosion process. Also suitable for coatings on transport, paper, printing and glue rolls. Furthermore worth mentioning its decorative properties, sprayed as a topcoat.
MD120	Brass	CuZn37	1,6-3,2	20	12	n.a.	70	920	Turning	Highly suitable for the use in surface finishing (decorative coatings). Replaces solid brass in many cases, e.g. for coatings on shafts and rollers, as well as on press plates in the furniture industry.
MD130	Tin-Bronze	CuSn7	1,6-3,2	40	12	n.a.	120-200	1040	Turning	For hard, wear resistant coatings with good emergency running properties. A special bronze, e.g. for buildup coatings inside bearings and bushings, for the repair of red brass and surface finishing.
MD142	Aluminum-Bronze	CuAl8	1,6-2,5	20	12,5	n.a.	120-200	1035	Turning	Particularly the micro-porosity of the sprayed coating leads to excellent emergency running properties due to good oil retention. The good wear characteristics are typical, thanks to the high hardness of this bronze without losing the sliding properties. Very good adhesion, hard wear-resistant bronze for highly stressed bearings.
MD141	Aluminum-Bronze	CuAl9	1,6-2,5	20	12,5	n.a.				Similar to MD142, only higher alloyed.

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MD150	Nickel	Ni99,2	1,6-2,5	20	12,5	n.a.	80-180	1455	Turning	Good adhesion, corrosion protection against alkaline media. This nickel wire (with a purity of 99.2%) is used where the typical corrosion resistant properties of nickel are required. Porous casting, seal coating of cracks, as well as the spraying of buffer coating are further typical applications.
MD151	Monel	Ni64Cu32	1,6-2,0	20	12,5	n.a.	140-200	1340	Turning	Corrosion resistant in seawater, with good running properties and excellent machinability. Wear-resistant and thus among other things suitable for buildup coatings inside bearings and bushings.
MD152	Monel	NiCuAl	1,6-2,0	20	12,5	n.a.				Similar to MD151 but alloyed with aluminum for special applications.
MD153	Monel	NiCuFe	1,6-2,0	20	12,5	n.a.				Similar to MD151 but alloyed with iron for special applications.
MD160	Nickel-Chrome	Ni80Cr20	1,6-3,2	20	12,5	n.a.	140-250	1395	Turning	For corrosion-resistant, easy machinable coatings. Scale-resistant bond top with excellent adhesion, e.g. suitable as a buffer coating for ceramics. An OSUCAS special wire without iron content. Perfectly suitable as heat and scale protection coating due to its thermal protection effect up to 980 °C. The high corrosion resistance acts as a shielding against oxide. Excellent rust protection in hot steam exposure. Suitable for thin film applications such as renewal of lathe beds, repairs of storage areas, etc.
MD170	Tin	Sn99,9	2,0-3,0	n.a.	20	n.a.	15-25	232		This filler material is used e.g. in the production of food processing machinery. The low melting point allows the use in mold making on wood or plaster surfaces. Furthermore, solderable coatings are produced with this material in the electrical industry.
MD171	Babbitt Tin basis	SnSb7Cu4	2,5-3,2	n.a.	15	n.a.	20	265	Turning	This bearing metal based on tin gives the ability amongst other things to produce white metal bearings more easily and economically. Costly preparations of the bearing shells have not to be applied. A good surface film formation and high hardness without changing the bearing properties distinguish this wire.