

## **Material Information Card Enamelled Winding Wire**

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This information sheet is not a Safety Data Sheet, since our wires are only articles according REACH. They are neither Substances nor Components, and require no SDS. This information sheet is intended to give guidance to the user on any potential health, safety and environmental question associated with the use of this material. The information has been standardised within all European Manufacturers, members of EWWG: Europacable Winding Wire Group

## We declare that the Material conforms to the Environmental Specifications, as listed in the Ecodeclaration below

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ENVIRONMENTAL MANAGEMENT SYSTEMS	<b>DIN EN ISO14001</b> Certificate No: 004273 UM dated 2014-05-02			
MATERIAL	MAGNEBOND UL-180, MAGNEBOND UL1-180, MAGNEBOND UV-155			
MATERIAL DESIGNATION	Polyurethane enamelled wire with polyamide or polyvinyl butyral top coat			
IEC STANDARDS	IEC 60317-35			
PURPOSE	For use only as winding wires for electrical applications			
CHEMICAL COMPOSITION	The film is a modified Polyurethane with a polyamide top coat as a self bonding layer on a copper conductor (or polyvinyl butyral). The surface is coated with an extremely thin layer of paraffin wax, beeswax or ester wax.  Substrate: electrolytic copper 99.95 % purity.  The material does not contain lead, mercury, cadmium, hexavalent chromium, polybromated biphenyl (PBB), polybrominated diphenylether (PBDE), Hexabromocyclododecan (HBCCD), Di(2-ethylhexyl)phthalat (DEHP), Butylbenzylphthalat (BBP), Dibutylphthalat (DBP) and Diisobutylphthalat (DIBP) according to European Union Directive 2011/65/EU (RoHS II) and pentaBDE, octaBDE according to European Union Directive 2003/11/EC.			
WEIGHTS AND DIMENSIONS	Double coat wire: wire with base coat insulation plus overcoat insulation. Substrate: from 95 to 99.3 % in weight (average 97.5 %) Base coat insulation: from 0.6 to 4 % in weight (average 2.0 %) Overcoat insulation: from 0.1 to 1 % in weight (average 0.5 %)			
PHYSICAL PROPERTIES	Solid material - stable up to its recommended maximum operating temperature of 180 °C, for a minimum life of 20,000 hours. (150 °C for MAGNEBOND UV-155) Resistivity at 20 °C: Copper 0.0172413 $\Omega$ mm²/m, aluminum 0.027898 $\Omega$ mm²/m			
HEALTH HAZARDS	There are no known health hazards associated with this material when used for its specified purpose. If the enamel film is burnt or soldered, degradation products may be evolved which may require local exhaust ventilation.			
FIRE PRECAUTIONS	normal conditions of storage this material will not initiate nor support combustion. this material is involved in a fire, the plastic spools, pallets and other packaging are mbustible and may give off toxic fumes.			
HANDLING USE / PRECAUTIONS	As this material is used in other manufacturing processes it is important that any safety devices on the winding machines are used in accordance with the manufacturers' instructions. Particular attention should be paid to subsequent operations such as soldering and bonding, local exhaust ventilation should be used if required. Care should be taken to prevent cuts from any sharp edges on the wire. When de-reeling, care should be taken to ensure that any loose ends from the end of the reel or from a wire break do not fly out and cause laceration injury. Care should also be taken to ensure that trapped wires do not cause the reel to be pulled up out of position. On site risk assessments should be carried out to determine the safe way of handling reels or packages containing wire.			
OCCUPATIONAL EXPOSURE STANDARDS	Only for Polyurethane coatings: Isocyanate will be evolved during burning or soldering and is a potential respiratory sensitizer. For the exposure limits please refer to the applicable values of each Country.			



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TRANSPORTATION / STORAGE CONDITION  Enamelled Winding Wire is not subject to any specific provision Community.  Care should however be taken to ensure that all loads are sect during transportation.  The storage temperature should not exceed 60 °C. High humic aggressive agents should be avoided. Recommended condition humidity and no direct solar radiation.  Under optimum storage condition the minimum shelf life for is values, after exceeding the time limit the properties of the wire use.  DISPOSAL PRECAUTIONS  a) Winding wires are used with other materials to form part of equipment/apparatus. As far as the Directive on Electrical a (WEEE 2002/96/CE) is concerned, it is the End of Life of the Equipment/Apparatus that is important.  The winding wire producers do not have a direct influence of apparatus.  b) Winding wires are not equipment according to Directive WE The winding wire producers shall not be charged with the refrecycling.  c) Only for information the winding wires producers suggest to wires this environmental-friendly way of recycling the ename from production waste, customer production waste or end of apparatus:  1) To separate the metal wire from the packaging or suppoce 2) To send the metal wire from the packaging or suppoce 2) To send the metal waste to the metal refinery in order to 3) To send the packaging materials to the packaging produced of the metal waste of the metal refinery in order to 3) To send the packaging materials to the packaging 15.01.02 Plastic packaging 15.01.03 Wooden packaging 15.01.03 Wooden packaging 15.01.04 Metallic packaging 15.01.05 Composite packaging 15.01.06 mixed packaging 1		a other contings	No relevent standards for all	
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recycling.  c) Only for information the winding wires producers suggest to wires this environmental-friendly way of recycling the ename from production waste, customer production waste or end of apparatus:  1) To separate the metal wire from the packaging or suppode 2) To send the metal waste to the metal refinery in order to 3) To send the packaging materials to the packaging product of the packaging materials to the packaging product of the packaging materials of the packaging product of the packaging materials of the packaging product of the packaging materials of the packaging end to the packaging are:  16.01.18 non-ferrous metal 17.04.01 Copper, bronze and brass 17.04.02 Aluminum  The Eurocode concerning the packaging end 15.01.01 Paper and cardboard packaging 15.01.02 Plastic packaging 15.01.03 Wooden packaging 15.01.04 Metallic packaging 15.01.05 Composite packaging 15.01.06 mixed packaging 15.01.06 m	The winding wire producers do not have a direct influence on the life of the equipment / apparatus.  b) Winding wires are not equipment according to Directive WEEE 2002/96.			
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This information is presented in good faith and is based on knowledge of the materials in January 2017