

IDENTIFICATION WIRE DATA SHEET

SILICON RUBBER (GS)

IDENTIFICATION

GS

FACTORY:

- NAME ELEXA SRL

- ADDRESS VIA ALLE FABBRICHE N. 20 - 10072 CASELLE TORINESE (TO)

- MARKING

(STAMPIGLIATURA)

(FILO DISTINTIVO)

TYPE

ENERGY WIRE, FLEXIBLE, SINGLE CORE SILICON RUBBER INSULATION -
NOMINAL MAX VOLTAGE 300/500V

PECULIARITIES THERMICAL PERFORMANCES: CLASS H STABLE

- WHERE USE IT HEAVY THERMICAL CONDITIONS; LIMITED DIMENSIONAL WORK
CONDITIONS; HIGH THERMICAL CONCENTRATION.
ELECTRICAL AD GAS COOKERS, LIGHTING, HOVENS, AUTOMA-
TIONS, PRODUCTION MACHINERY.

- WHERE AVOID IT WEAK MECHANICAL VIBRATIONS RESISTANCE

WIRE DESCRIPTION

ELECTRICAL CONDUCTOR WIRE , SINGLE-CORE FLEXIBLE COPPER CONDUCTOR WITH SILICON INSULATING RUBBER EXTRUSION, THERMAL-CLASS H.
 AVAILABLE IN STANDARD TYPE (U₀/u 300/500 V) OR IN LOW THICKNESS SPECIAL FEATURE (U₀/U 300/300V)

TECHNICAL DATA

MAX OPERATION VOLTAGE: 300-500V
 EXERCISE TEMPERATURE: 180 GRADES °C
 MAX TEMPERATURE: 200 GRADES °C
 MINIMUM WORKING TEMPERATURE: -50 GRADES °C
 MINIMUM RADIUS BENDING: 6 TIMES MAX ESTERNAL DIAMETER
 MAX TRACTION RESISTANCE: 50 N/mm²

MORE INFO

REF. OUR CATALOGUE
 or
 WEB SITE www.elexa.it

PARTS LIST

COPPER FLEXIBLE CONDUCTOR (ON REQUEST NICKEL OR STEEL)
 PRIMARY INSULATION: SILICON RUBBER COMPRESSED EXTRUSION

RANGE

STRANDING: FROM 14X0,15 TO 1121X0,50 COPPER FILAMENTS
 CROSS SECTIONS: FROM 0,25 MM² TO 240 MM²
 INTERNAL STANDARD COLOURS: SINGLE 12 COLOURS
 STANDARD WORK VOLTAGE: 300/500V OR 300/300V

GENERAL INFORMATIONS

- GOOD CUT PERFORMANCE
- NORMAL OPERATION IN H THERMAL CLASS
- GOOD PERFORMANCE UP TO 180 °C
- AGE MODIFICATIONS NOT DETECTABLE
- WEAK TRACTION RESISTANCE

TESTS AND REFERENCE NORMS

LABORATORY

TEST	CHECK	METHOD	CYCLE	RESULTS
DIMENSIONAL	DIAM.SINGLE YARN AND STRAND	CEI 20-34	EVERY 100 KM	INTO STANDARD
DIELECTRIC STRENGTH	BREAKDOWN IN WATER	CEI 20-19/2	EVERY100 KM	NO FAULTS
CONDUCTOR RESISTIVITY	OHMS RESISTANCE	CEI 20-34	EVERY 100 KM	FOLLOWING CEI 20-29
MECHANICAL	ELONGATION AT BREAK ESTRUSIONE	CEI 20-34	EVERY 100 KM	MINIMUM 200 %

PACKAGING

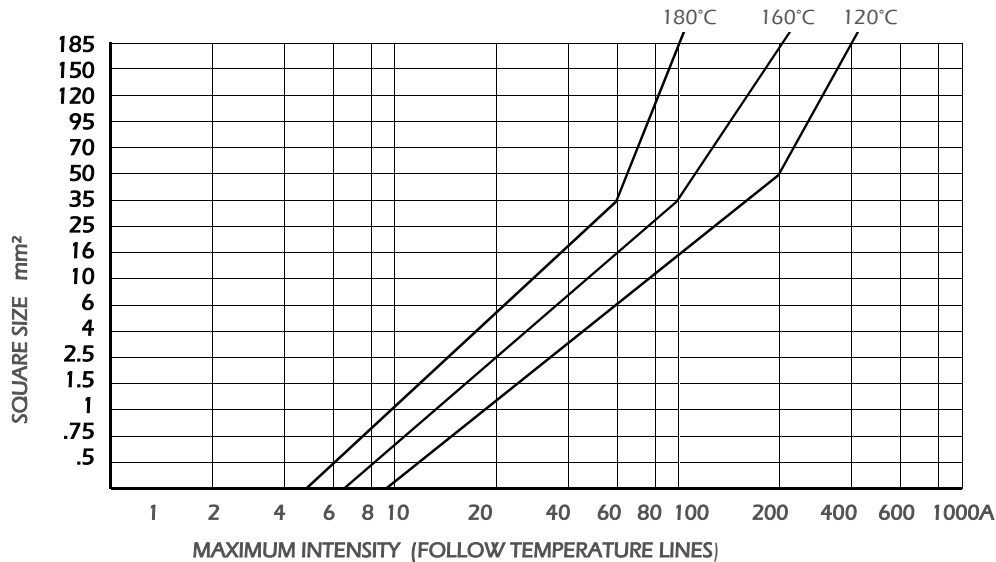
TEST	CHECK	METHOD	CYCLE	RESULTS
DIELECTRIC STRENGTH	SPARK-TESTER ON PACKAGE LINE	CEI 20-19/2	100 %	FAULTS ELIMINATION
DIMENSIONAL	DIMENSIONAL RANGE	CEI 20-34	100 %	INTO RANGE

PHISICAL DATA SHEET

CONDUCTOR DETAILS AND MAXIMUM TEMPERATURE IN OXIDIZING ATMOSPHERE

METAL	CHEM.	TEMPERATURE MAX IN OXIDI- ZING ATMO- SPHERE -°C	TEAR STRENGTH N/mm ²	ELASTIC MOD. kN/mm ²	SPECIFIC WEIGHT g/cm ³	LINEAR DILATA- TION FACTOR X 10 ⁻³ /°C	THERMAL CONDUC. W/(m°C)	RESISTIVITY 20°C Ω/km/mm ²
BARE COPPER	Cu	150	300	130	8,89	0,0165	395	1,724
TINNED COPPER	Cu Sn	180	300	130	8,89	0,0165	395	1,752
SILVERED COPPER	Cu Ag	200	300	130	8,89	0,0165	395	1,724
NICKELED COPPER	Cu Ni	300	300	130	8,89	0,0165	395	1,760
STEEL	Fe	180	370-420	170	7,8	0,0117	73	117
STEEL INOX	AISI 304	600	500-700	200	7,9	0,016	15	819
NIKEL	Ni 99	600	720	200	8,9	0,0133	74,9	100

MAX INTENSITY FOR SINGLE WIRE



Following the diagram you will find the **MAXIMUM INTENSITIES ADMITTED**.

Would you consider that the single yarn operating in cooled conditions, **CAN BE SURCHARGED** up to an increased current level, that can justify his own internal heating generation.

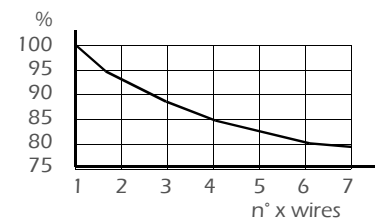
Logically that situation has to be **DIRECTLY CHECKED AND TESTED** in working final conditions.

The heat-resistant performance, can be joined from internal or external conditioning.

INTENSITY REDUCTION ON MULTIPLE STRANDING WIRES

The maximum intensity admitted **HAS TO BE REDUCED** of a percentage following this particular diagram.

Please avoid to cross the considerations of possible internal heat generations due to surcharge. Too many factors has to be considered for safety appliances.



ELECTROPHISICAL COMPARATION MAIN WIRE TYPES

	PPR	PVR	GS	GVR	GPR	GVS	2SVS/R	TFVS/R	NIKEL (2S or TF)
COMPORTAMENTO AL TAGLIO CUT & SHEARING PERFORM. COUPAGE ET DENOUAGE									
FORMAZIONE DI POLVERI POWDERS IN USE PROD. DE POUUDRE									
FISSAGGIO DEL RIVESTIMENTO BRAID FIXING FIXATION DU REVETEMENT									
TEMPERATURA DI ESERCIZIO OPERATING TEMPERATURE TEMPERATURE DE SERVICE	-30+155°C	-30+155°C	-50+180°C	-50+200°C	-50+180°C	-50+220°C	-50+250°C	-50+300°C	-50+300°C
TENSIONE DI ESERCIZIO OPERATING VOLTAGE TENSION DE SERVICE	220/380V	220/380V	300/500V	300/500V	300/500V	300/500V	220V	220/380V	220/380V
TENSIONE DI COLLAUDO TEST VOLTAGE TENSION D'ESSAI	1,2/2KV	1,2/2 KV	2 KV	2 KV	2 KV	2 KV	1,2 KV	1,2 KV	1,2 KV
TENSIONE DI PERFORAZIONE BREAKDOWN VOLTAGE TENSION DE CLAQUAGE	> 4 KV	> 4 KV	~ 6 KV	~ 6 KV	~ 6 KV	~ 6 KV	~ 2,2 KV	~ 2,2 KV	~ 2,2 KV
QUALITA' MECCANICHE MECHANICAL PROPERTIES PROPRIETE' MECANIQUE									
RESISTENZA ALL'ABRASIONE ABRASION RESISTANCE RESISTANCE A L'ABRASION									
RESISTENZA ALLA FIAMMA FIRE RESISTANCE RESISTANCE AU FEU									
RESISTENZA AGLI OLII MINERALI MINERAL OEL RESISTANCE RESISTANCE AUX HUILES									
FLESSIBILITA' FLEXIBILITY FLEXIBILITE'									
IMPERMEABILITA' IMPERMEABILITY ETANCHEITE'									
INVECCHIAMENTO AGEING VIEILLISSEMENT									
SEZIONI LAVORATE mm ² AVAILABLE SIZES SECTIONS DISPONIBLES	0,5-10mm	0,5-10	0,35-240	0,35-240	0,35-240	0,35-240	0,5-10	0,5-10	0,5-10
COLORI COLORS COLEURS	12 COL	12 COL	UNITO 8 COL	12 COL	12 COL	RIGATO 8 COL	12 COL	12 COL	12 COL