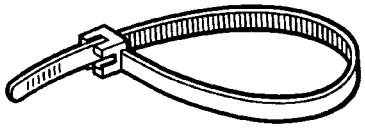
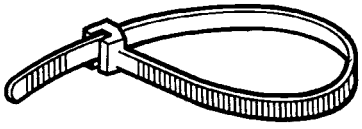
87045 LIMOGES Cedex
Telephone: +33 5 55 06 87 87 - Fax: +33 5 55 06 88 88

Technical sheet: F9012D

Colring cable ties

Cat. No(s): 320 12 to 320 63 | Date: 22.04.97





1. USE

The Colring cable tie is specially designed for connection of electrical cables in series. It has a self-locking head. The ribbing at 0.7 mm intervals allows tightening to the exact dimension of the cables to be held together

2. TECHNICAL CHARACTERISTICS

2.1 Cable ties with ribbed internal surface

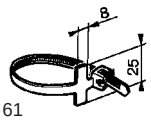
Cat. No.							Tensile strength	
Clear	Black High temp. UV prot.	Width (mm)	Flat length (mm)	Max. tightening diameter (mm)	Min. tightening diameter (mm)	Max. clipping force (mm)	Test diameter (mm) acc. to UL 1565	Guaranteed min. strength (daN)
320 30	320 12	2.4	95	18	1.6	0.15	16	8.2
320 31		2.4	140	33	1.6	0.15	29	8.2
320 32		2.4	180	46	1.6	0.15	37	8.2
320 37	320 15	3.5	140	33	1.6	0.20	29	13.6
320 38		3.5	180	46	1.6	0.20	27	13.6
320 39		3.5	280	77	1.6	0.20	76	13.6
320 40		3.5	360	102	1.6	0.20	102	13.6
320 42	320 22	4.6	180	46	1.6	0.25	37	22.7
320 43		4.6	280	77	1.6	0.25	76	22.7
320 44	320 24	4.6	360	102	1.6	0.25	102	22.7
320 47		7.6	180	42	4.8	1	37	54.5
320 49	320 29	7.6	360	98	4.8	1	88	54.5
320 50		7.6	720	218	4.8	1	102	54.5

Identification cable ties

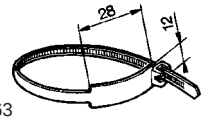
Cat. No.							Tensile strength	
Clear	Black High temp. UV prot.	Width (mm)	Flat length (mm)	Max. tightening diameter (mm)	Min. tightening diameter (mm)	Max. clipping force (mm)	Test diameter (mm) acc. to UL 1565	Guaranteed min. strength (daN)
320 61		2.4	95	18	4	0.15	16	8.2
320 63		4.6	160	46	9.5	0.25	37	22.7

2.2 Cable ties with ribbed external surface

Cat. No.						Tensile strength	
Clear	Width (mm)	Flat length (mm)	Max. tightening diameter (mm)	Min. tightening diameter (mm)	Max. clipping force (daN)	Test diameter (mm) acc. to UL 1565	Guaranteed min. strength (daN)
320 52	2.4	105	22	1.6	0.45	16	8.2
320 54	3.5	140	33	1.6	0.6	29	13.6
320 55	4.6	180	46	1.6	0.9	37	22.7
320 57	4.6	360	102	1.6	0.9	88	22.7
320 58	7.6	360	98	4.8	1.5	88	54.5

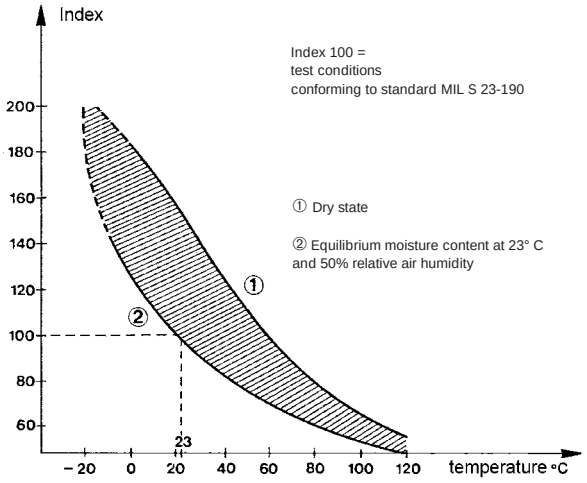


320 61

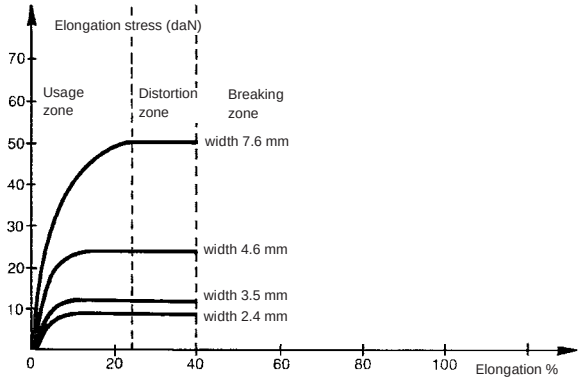


320 63

2. TECHNICAL CHARACTERISTICS *(continued)*



Tensile strength as a function of temperature



Resistance to elongation

3. MATERIAL CHARACTERISTICS

Polyamide 6/6	clear	black
Moisture intake	2.4 %	2.4 %
Temperatures		
• permanent operating: > 20,000 hrs	85 ° C	105° C
• continuous operating: > 1,000 hrs	100° C	120° C
• permitted in peak conditions	130° C	150° C
• resistance to cold:		
- use	- 40° C	- 40° C
- assembly	- 10° C	0° C
Limit oxygen index (LOI) NF T 51-071 - ASTM D 2863	29 %	27.5 %
Corrosion by fumes - NF C 20-453	< 5 %	< 5 %
Flame resistance - UL 94	94 - V2	94 - V2
Incandescent wire test NF C 20-455	850° C	850° C
UV resistance - EDF test	unprotected	protected

Materials without halogen

Resistance to chemical agents, at a temperature of 23° C (valid for clear and black ties) +: excellent resistance, 0: moderate resistance, -: low resistance

Acids:	
• mineral	
- hydrochloric ≤ 10 %	0
- sulphuric ≤ 10 %	-
- nitric - all concentrations	-
• organic	
- acetic 10 %	0
- formic 10 %	-
Bases:	
• mineral	+
• organic	+
Oils	+
Fats	+
Petroleum products	+
Chlorinated solvents	+
Phenols	-
Alcohols	+
Hydrocarbons	+
Mineral salts	+

4. CONFORMITY TO STANDARDS AND APPROVALS

Materials: standard ASTM D 4066-82
class 1 for clear material
class 2 for black material
Cable ties: standard MIL S 23-190
standard MIL MS 3-367 for Cat. Nos. 320 12/15/22/24/29 320 30/37/42/43/44/49/50/52/54/55/57/58
standard MIL MS 3-368 for Cat. Nos. 320 61/63
standard UL 1565 for all Cat. Nos. except 320 40/50
(approval UL n° E 73 369)

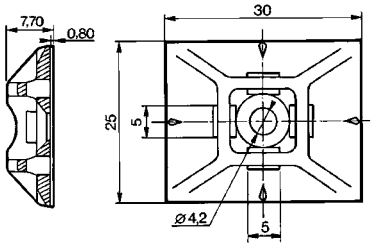
5. INSTALLATION

Colring cable ties are supplied in weatherproof packaging in order to guarantee their integrity whatever the storage conditions
Colring cable ties are installed manually
For widths 2.4 - 3.5 and 4.6 mm, the cable tie is tightened and any excess length cut using Legrand pliers P 46 - Cat. No. 320 88 - which comply with standard MIL MS 90-387
For width 7.6 mm, we recommend Colson pliers - Cat. No. 319 96

6. ACCESSORIES

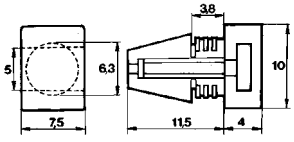
6.1 Self-adhesive mounting base

Cat. No. 320 65: clear
Cat. No. 320 67: black
Material: polyamide 6.6
For cable ties with a max. width of 4.6 mm
Quick-setting adhesive:
• Maximum resistance after 48 hrs polymerization for fixing on clean and grease-free surface, applying a force of 5 daN for 5 seconds
• Ambient fixing temperature: between 20 and 40° C, below 10° C not recommended



6.2 Clip-on mounting base

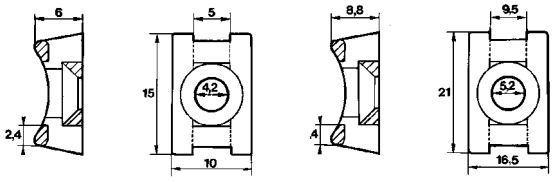
Cat. No. 320 76
Material: polyamide 6.6 clear
For cable ties with a max. width of 4.6 mm
For sheet steel thickness 0.5 to 3 mm
Drilling diameter: 6 to 6.35 mm



6. ACCESSORIES *(continued)*

6.3 Screw fixing mounting base

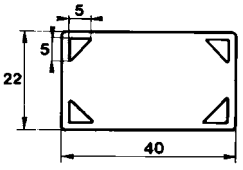
Central fixing
Cat. No. - 320 70 for cable ties with a max. width of 4.6 mm, screw ø 4 mm
- 320 72 for cable ties with a max. width of 7.6 mm, screw ø 5 mm
Material: polyamide 6.6 clear



320 70 320 72

6.4 Identification plates

Cat. No. 320 85
For cable ties with a max. width of 4.6 mm
Marking using black felt-tip pen with indelible ink Cat. No. 372 98



6.5 Colring pliers

Cat. No. 320 88