

DESICCANTS

DESCRIPTION AND USE

CONTENTS	PAGE
1. GENERAL	1
2. PRECAUTIONS	1
3. DESCRIPTION	1
4. DESICCANT USE	2
5. DESICCANT QUANTITIES	2

1. GENERAL

1.01 This section covers the description and use of B desiccant and C desiccant. Desiccant is a drying agent used to remove moisture from pulp or paper insulated cables, apparatus cases, etc.

1.02 The reasons for reissuing this section are listed below. Revision arrows are used to emphasize the more significant changes.

- (a) Delete reference to the 650 gram screw top can
- (b) Delete reference to the B desiccant injector
- (c) Delete reference to Sections 081-420-100, 632-425-200, 632-800-300, 632-800-301, and 632-800-302
- (d) Add reference to Sections 644-200-031 and 644-200-101
- (e) Add information on use of B desiccant.

2. PRECAUTIONS

2.01 ***Desiccant should not be used in splices containing only plastic-insulated conductors.*** For drying splices containing both plastic- and paper- or pulp-insulated conductors, C desiccant (in bags) should be used in the quantity

required for the paper- or pulp-insulated conductors only.

2.02 ***The B desiccant should not be used in splices containing coaxial, spiral-four conductors, or 710-type connectors.*** The C desiccant (in bags) should be used for drying splices containing these conductors.

2.03 Although desiccant is a harmless substance, B desiccant should be handled carefully to avoid inhalation of dust particles. Regular eye protection (safety glasses) should be worn when handling desiccant; however, under windy conditions, special eye protection (goggles) should be worn to prevent dust particles from entering the eyes.

2.04 Handling desiccant may cause the hands to feel excessively dry. A light application of petrolatum will relieve the dryness.

3. DESCRIPTION

B DESICCANT

3.01 The B desiccant is a moisture-absorbing material which resembles sand in consistency. It is either white or brown, depending on the manufacturer. Either kind fulfills the system requirements.

3.02 The B desiccant is supplied in 325-gram polyethylene-foil-mylar laminate bags.

3.03 For convenience in measuring, an empty 160-gram can may be used to dispense desiccant from the 325-gram bags. Estimate smaller amounts as needed.

C DESICCANT

3.04 The C desiccant consists of the same material as B desiccant. However, C desiccant is packaged in dust-proof cloth or paper bags which are approximately 5 inches wide, 7 inches long, and 1/4 inch thick.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

3.05 The C desiccant is supplied in cans each of which contains ten 4-ounce bags. Each can contains a moisture indicating capsule, fastened to the inside surface of the lid. This capsule, when exposed to moisture or excessive humidity, will change from a blue to a pink color indicating that the desiccant has been affected and should no longer be used.

4. DESICCANT USE

B DESICCANT

4.01 The use of B desiccant to dry wet cable conductors is covered in Sections 644-200-031 and 644-200-101. Do not use with 710 connector or at junction of filled cable and pulp cable.

4.02 Desiccant in a container that is not tightly closed will absorb moisture from the atmosphere and become unsatisfactory for use. When only part of the contents of a container is used, it is permissible to use the balance within approximately one week provided the cover is screwed down tight immediately. However, if there is any doubt as to the condition of the desiccant in a partly used container, it should be discarded.

C DESICCANT

4.03 The C desiccant is used to dry splices containing coaxial and spiral-four conductors and 710 connectors.

4.04 The C desiccant should be used in all new splices.

4.05 Additional information on the use of C desiccant is covered in Sections 632-425-205, 632-490-200, 644-200-042, and 644-200-043.

5. DESICCANT QUANTITIES

5.01 The quantity of desiccant required for a splice depends on the type of insulation on the conductors and the number of pairs entering the splice.

5.02 The number of pairs in a splice where all conductors are cut is taken as the total of the pairs in all the cables entering the splice. In a straight splice without change of cable size, the total number of pairs is twice the number of pairs in the cable. In a bridge splice, the total number of pairs is the sum of the feeder pairs on each side plus the pairs in the branch cable.

5.03 The quantity of desiccant required is dependent upon the total number of pairs in a splice as shown in Table A.

TABLE A

QUANTITY OF DESICCANT REQUIRED FOR SPLICE

TOTAL NUMBER OF PAIRS	TYPE OF CABLE			
	19- AND FINER GAUGE EX-CHANGE CABLE		19- AND HEAVIER GAUGE TOLL CABLE	
	B DESICCANT (GRAMS)	C DESICCANT (BAGS)	B DESICCANT (GRAMS)	C DESICCANT (BAGS)
25	10*		20	
50	10*		40	
75	15*		65	1
100	20		85	1
150	25		125	1
200	35		170	2
300	50	1	250	3
400	70	1	340	4
450	75	1	380	4
600	100	1	500	5
900	150	2	750	7
1200	200	2		
1500	250	3		
1800	300	3		
2100	350	4		
2400	400	4		
2700**	450	4		

* 20 grams for cleared end; add 50 percent to specified quantity for butt splice.

** Add 50 grams for every additional 300 pair over.

- 5.04** The following examples illustrate the use of Table A:
- (a) Straight splice 1200-pair cable: 2400 total pairs = 4 bags of C desiccant or 400 grams of B desiccant.
 - (b) A 16-pair terminal spliced into a 200-pair cable with all conductors cut: 416 total pairs = 1 bag of C desiccant or 75 grams of B desiccant.
 - (c) Bridge splice of 400-pair cable diminishing to a 300-pair cable with a 200-pair branch cable: 900 total pairs = 2 bags of C desiccant or 150 grams of B desiccant.
- 5.05** At splices where all the conductors are not cut, as in splicing distribution terminals, determine the quantity of desiccant as if all conductors were cut, but use only half the quantity. In no case use less than 20 grams of desiccant.
- 5.06** At test openings, made in locating cable trouble, determine the quantity of desiccant as if all conductors were cut, but use only half the quantity. In no case use less than 20 grams of desiccant.
- 5.07** In closing an existing splice that has been opened, determine the quantity of desiccant as if it were a new splice.
- 5.08** In splices containing extra quantities of muslin add 20 to 40 grams of desiccant, depending on the size of the splice, to whatever quantity is required for the paper- or pulp-insulated pairs or quads.
- 5.09** In splices containing capacitors or individual loading coils that are packaged with paper or fabric material, place additional desiccant as follows:
- (a) 10 grams for each capacitor
 - (b) 15 grams for each loading coil.
- 5.10** In a temporarily closed sheath opening or splice, use the same amount of desiccant as would be required if the opening or splice were being permanently closed. When work is resumed, remove and discard the desiccant.
- 5.11** Muslin, cotton sleeving, cotton tape, and other splicing materials can be dried in an airtight container with about 20 to 40 grams of desiccant. The materials should be kept in the container for at least 12 hours prior to use.