Downloaded from http://www.everyspec.com

INCH-POUND
A-A-59588
January 12, 2001
SUPERSEDING
ZZ-R-765E/GEN
May 10, 1989

COMMERCIAL ITEM DESCRIPTION

RUBBER, SILICONE

The General Service Administration has authorized the use of this commercial item description for all federal agencies.

1. SCOPE. This commercial item description (CID) covers six classes of silicon rubber, in various grades.

2. CLASSIFICATION. The silicon rubber shall be of the following classes and grades, as specified:

Class 1A - Low temperature resistant.
Grades 40, 50, 60, 70, 80

Class 1B - Low temperature resistant and low compression set at high temperature.
Grades 40, 50, 60, 70, 80

Class 2A - High temperature resistant.
Grades 25, 40, 50, 60, 70, 80

Class 2B - High temperature resistant and low compression set.
Grades 40, 50, 60, 70, 80

Class 3A - Low temperature, tear and flex resistant.
Grades - 30, 50, 60

Class 3B - Tear and flex resistant.
Grades - 30, 50, 60, 70, 80

Beneficial comments, recommendations, additions, deletions, clarification, etc., and any data which may improve this document should be sent to: Defense Supply Center Richmond Standardization Program Branch, ATTN: DSCR-VBD, 8000 Jefferson Davis Highway, Richmond, VA 23297-5610.

AMSC N/A FSC 9320

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

Downloaded from http://www.everyspec.com

3. SALIENT CHARACTERISTICS

3.1 Materials and composition. The material shall be silicon rubber, formulated and processed to meet the performance requirements of this CID.

3.2 Physical and mechanical properties. Unless otherwise specified, the silicone rubber shall meet the physical and mechanical properties specified in table II, and the applicable Society of Automtive Engineering (SAE) standards listed below. Former ZZ-R-765 references to ZZ-R-765 slash sheet properties should refer to the replacement CIDs in table I (see 7.3). Proof of compliance may be required (see 5.1.1).

GRADE	DUROMETER	AMERICAN NATIONAL STANDARD	TITLE
40	40	SAE-AMS-3301	Silicone Rubber, General Purpose
50	50	SAE-AMS-3302	Silicone Rubber, General Purpose
60	60	SAE-AMS-3303	Silicone Rubber, General Purpose
70	70	SAE-AMS-3304	Silicone Rubber, General Purpose
80	80	SAE-AMS-3305	Silicone Rubber, General Purpose

3.3 Form. The silicone rubber shall be in the form of sheets, strips, or tape, extruded shapes or tubing, or molded shapes, as specified in the contract or purchase order (see 7.2).

3.4 Dimensions and tolerances. Dimensions and tolerances shall be as indicated in the contract or purchase order (see 7.2). If no tolerances are specified, A-3 commercial tolerances of the Rubber Manufacturer's Association (RMA) Rubber Handbook shall apply for molded solid rubber products, as shown in table III, and the commercial tolerances of the RMA Rubber Sheet Packing Handbook shall apply for packing, as shown in table IV. Commercial tolerances, as shown in tables III, IV, V, VI, and VII shall be applied for extruded shapes, extruded tubing and calendered sheet, respectively. Dimensions and tolerances for o-rings shall be as specified in SAE-AS568, or in accordance with the applicable part drawing for non-standard sizes (see 7.2).

3.5 Extruded tubing. Unless otherwise specified in the contract or purchase order (see 7.2), the length of extruded tubing shall be furnished in coils containing 100, 200, 500 or 1,000 feet per coil. Each coil shall contain not more than three individual lengths of tubing per 100 feet. No individual length of tubing shall be less than 15 feet.

3.6 Color. Unless otherwise specified (see 7.2), the color of the silicone rubber shall be the natural color of the compound furnished.

TABLE I. Related commercial item descriptions. (Formerly ZZ-R-765 slash sheets, see 7.3)

A-A-55449	Rubber, Silicone; Channel, Nonmetallic, Shape 1	A-A-55774	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 30
A-A-55450	Rubber, Silicone; Channel, Nonmetallic, Shape 2	A-A-55775	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 31
A-A-55451	Rubber, Silicone; Channel, Nonmetallic, Shape 3	A-A-55776	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 32

Downloaded from http://www.everyspec.com

TABLE I. Related commercial item descriptions. (Formerly ZZ-R-765 slash sheets) (Continued)

A-A-55452	Rubber, Silicone; Channel, Nonmetallic, Shape 4	A-A-55777	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 33
A-A-55749	Rubber, Silicone; Channel, Nonmetallic, Shape 5	A-A-55778	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 34
A-A-55750	Rubber, Silicone; Channel, Nonmetallic, Shape 6	A-A-55779	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 35
A-A-55751	Rubber, Silicone; Channel, Nonmetallic, Shape 7	A-A-55780	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 36
A-A-55752	Rubber, Silicone; Channel, Nonmetallic, Shape 8	A-A-55781	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 37
A-A-55753	Rubber, Silicone; Tubing, Nonmetallic, Round, Flexible, Shape 9	A-A-55782	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 38
A-A-55754	Rubber, Silicone; Round Section, Shape 10	A-A-55783	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 39
A-A-55755	Rubber, Silicone; Packing Material, Shape 11	A-A-55784	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 40
A-A-55756	Rubber, Silicone; Packing Material, Shape 12	A-A-55785	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 41
A-A-55757	Rubber, Silicone; Gasket, Shape 13	A-A-55786	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 42
A-A-55758	Rubber, Silicone; Gasket, Shape 14	A-A-55787	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 43
A-A-55759	Rubber, Silicone; Rubber Sheet Solid, Shape 15	A-A-55788	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 44
A-A-55760	Rubber, Silicone; Strip, Shape 16	A-A-55789	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 45
A-A-55761	Rubber, Silicone; Strip, Shape 17	A-A-55790	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 46
A-A-55762	Rubber, Silicone; Strip, Shape 18	A-A-55791	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 47
A-A-55763	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 19	A-A-55792	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 49
A-A-55764	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 20	A-A-55793	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 50
A-A-55765	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 21	A-A-55794	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 51
A-A-55766	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 22	A-A-55795	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 52
A-A-55767	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 23	A-A-55796	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 53
A-A-55768	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 24	A-A-55797	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 54
A-A-55769	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 25	A-A-55798	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 55
A-A-55770	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 26	A-A-55799	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 56
A-A-55771	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 27	A-A-55800	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 57
A-A-55772	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 28	A-A-55802	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 48
A-A-55773	Rubber, Silicone; Nonmetallic, Special Shaped Section, Shape 29		

TABLE II. Physical and mechanical properties of silicone.

		PROPERTY VALUES AND RECOMMENDED ASTM TEST METHODS							
		UNAGED					AFTER OVEN AGING 2/		
CLASS	GRADE	Hardness, maximum Shore-A-Durometer ASTM D 2240	Tensile strength, minimum *MPa (psi) ASTM D 412	Elongation, minimum % ASTM D 412	Tear resistance, minimum **kN/m (ppi) ASTM D 624	Compression set, maximum % 1/ ASTM D 395	Hardness change, maximum durometer ASTM D 2240	Tensile strength change, maximum % ASTM D 412 & ASTM D 573	Elongation change, maximum % ASTMD 412 ASTM D 573
1A & 1B	40	40 ± 5	4.83 (700)	250		35	± 15	-30	-50
	50	50 ± 5	4.83 (700)	225		35	± 15	-30	-50
	60	60 ± 5	4.48 (650)	150		35	± 15	-30	-50
	70	70 ± 5	4.14 (600)	125		40	± 15	-30	-50
	80	80 ± 5	3.45 (500)	175		45	± 15	-30	-50
2A & 2B	25	25 + 5, -10	4.83 (700)	400		35-2A 25-2B	± 10	-20	-40
	40	40 ± 5	4.83 (700)	240		35-2A 25-2B	± 10	-20	-40
	50	50 ± 5	4.83 (700)	200		35-2A 25-2B	± 10	-20	-40
	60	60 ± 5	4.48 (650)	159-2A 100-2B		40-2A 25-2B	± 10	-20	-40
	70	70 ± 5	4.48 (650)	125-2A 80-2B		40-2A 25-2B	± 10	-25	-40
	80	80 ± 5	4.48 (650)	100-2A 60-2B		45-2A 30-2B	± 10	-25	-40
3A	30	30 +5, -10	5.86 (850)	500	14.00 (80)	40	+ 10	-25	-25
	50	50 ± 5	8.28 (1,200)	500	30.63 (175)	40	+ 10	-40	-50
	60	60 ± 5	7.59 (1,100)	400	26.25 (150)	40	+ 10	-35	-35
3B	30	30 ± 5	6.90 (1,000)	500	26.25 (150)	25	± 5	-20	-35
	50	50 ± 5	8.28 (1,200)	500	26.25 (150)	20	± 10	-25	-30
	60	60 ± 5	8.28 (1,200)	400	26.25 (150)	25	± 10	-30	-35
	70	70 ± 5	7.59 (1,100)	350	26.25 (150)	25	± 10	-30	-45
	80	80 ± 5	5.52 (800)	200	12.25 (70)	40	± 10	-25	-40

*MPa - kilopound-force per square inch
**kN/m - kilonewtons per meter
1/ Aging period shall be: Class 1A - 22 hours at 100°C (212°F)
Classes 1B, 2A, 2B - 70 hours at 150°C (302°F)
Classes 3A, 3B - 70 hours at 100°C (212°F)
2/ After oven aging: Classes 1A, 1B, 2A, 2B - 70 hours at 225°C (437°F)
Classes 3A, 3B - 70 hours at 200°C (392°F)

Downloaded from http://www.everyspec.com

Downloaded from http://www.everyspec.com

TABLE II. Physical and mechanical properties of silicone. (Continued)

		PROPERTY VALUES AND RECOMMENDED ASTM TEST METHODS						
		LOW TEMPERATAURE REQUIREMENTS			AFTER WATER IMMERSION 5/	OTHER REQUIREMENTS		
CLASS	GRADE	Young's modulus in flexure, 24 hrs. at 75°C, maximum MPa (psi) 3/ ASTM D 797	Brittle point, minimum °C (°F) 4/ ASTM D 2147	Torsional stiffness ratio, hours at -75°C, maximum ratio ASTM D 1053	Volume change, maximum percent ASTM D 471	Flex resistance, (crack growth), cycles 6/ ASTM D 813	Specific gravity ASTM D 297 Variation from pre-production rate	Impact resilience, minimum percent ASTM D 2632
1A & 1B	40	34.5 (5,000)	-75 (-103)	15			± 0.03	
	50	34.5 (5,000)	-75 (-103)	15			± 0.03	
	60, 70, 80	69.0 (10,000)	-75 (-103)	15			± 0.03	
2A & 2B	25, 40		-62.2 (-80)		+ 10		± 0.03	
	50		-62.2 (-80)		+ 5		± 0.03	
	60		-62.2 (-80)		+ 5		± 0.03	
	70		-62.2 (-80)		+ 5		± 0.03	
	80		-62.2 (-80)		+ 5		± 0.03	
3A	30	13.8 (2,000)	-90 (-130)	15	+ 5	40,000	± 0.03	
	50	34.5 (5,000)	-90 (-130)	15	+ 5	10,000	± 0.03	
	60	34.5 (5,000)	-90 (-130)	15	+ 5	10,000	± 0.03	
3B	30		-70 (-94)		+ 5	500,000	± 0.03	40
	50		-70 (-94		+ 5	140,000	± 0.03	45
	60		-70 (-94)		+ 5	50,000	± 0.03	35
	80		-70 (-94)		+ 5		± 0.03	35

3/ Both specimens shall meet the specified value. For class 3A, the indicated value shall be used as a referee only, should a dispute arise over the brittle point results.
4/ All test specimens shall not fail after single-impact blow, at the temperature specified.
5/ 70 hours at 100°C (212°F)
6/ No specimen shall show a crack in excess of ½ inch in length when flexed the specified number of cycles.

Downloaded from http://www.everyspec.com

TABLE III. RMA A3 dimensional tolerances for molded solid rubber products. 1/

TOLERANCES FOR MOLDED SOLID RUBBER PRODUCTS - COMMON							
SIZE (millimeters) Above	Inclusive	Fixed dimension tolerance 2/ (millimeters)	Closure dimension tolerance 3/ (millimeters)	SIZE (inches - approximate.) Above	Inclusive	Fixed dimension tolerance 2/ (inches)	Closure dimension tolerance 3/ (inches)
0 -	9.99	± 0.20	± 0.32	0	0.399	± 0.008	± 0.013
10 -	15.99	0.25	0.40	0.40	0.629	0.010	0.016
16 -	24.99	0.32	0.50	0.63	0.999	0.013	0.020
25 -	39.99	0.40	0.63	1.00	1.599	0.016	0.025
40 -	62.99	0.50	0.80	1.60	2.499	0.020	0.032
63 -	99.99	0.63	1.00	2.50	3.999	0.025	0.040
100 -	159.99	0.80	1.25	4.00	6.299	0.032	0.050
160 & over - To				6.30 & over - To			
find fixed tolerances, multiply by 0.5 percent.				find fixed dimensional tolerances, multiply by 0.5 percent.			

1/ This table should be used only with common shaped, all rubber parts.
2/ Fixed dimension tolerances apply individually to each fixed dimension by its own size.
3/ Closure dimension tolerances are determined be the largest closure dimension, and this single tolerance shall be used for all other closure dimensions. (Closure dimension refers to any dimension in a place parallel to the plane traced when the mold closes.)

Downloaded from http://www.everyspec.com

TABLE IV. RMA commercial tolerances for rubber sheet packing.

TOLERANCES FOR RUBBER SHEET PACKING			
THICKNESS	TOLERANCES		
Millimeters	Inches (approximate)	Millimeters	Inches
Under 0.80	Under 0.031	± 0.25	± 0.010
0.80 to 1.59	0.031 to 0.059	0.30	0.012
1.60 to 3.19	0.060 to 0.124	0.40	0.016
3.20 to 4.79	0.125 to 0.186	0.50	0.020
4.80 to 9.49	0.187 to 0.374	0.80	0.031
9.50 to 14.29	0.375 to 0.561	1.20	0.047
14.30 to 19.19	0.562 to 0.749	1.60	0.063
19.20 to 25.39	0.750 to 0.999	2.40	0.093
25.40 and over	1.00 and over	10 %	10 %

TABLE V. Commercial tolerances for special extruded shapes, except tubing.

TOLERANCES FOR SPECIAL EXTRUDED SHAPES			
DIMENSIONS	TOLERANCES		
Millimeters	Inches (approximate)	Millimeters	Inches
0 to 2.49	0 to 3/32	± 0.41	± 0.016
2.50 to 3.99	3/32 to 5/32	0.51	0.020
4.00 to 6.29	5/32 to 1/4	0.64	0.025
6.30 to 9.99	1/4 to 13/32	0.76	0.030
10.00 to 5.99	13/32 to 5/8	1.02	0.040
16.00 to 24.99	5/8 to 1	1.60	0.063
25.00 to 39.99	1 to 1-5/8	2.03	0.080
40.00 to 63.00	1-5/8 to 2-1/2	2.03	0.080

TABLE VI. Commercial tolerances for extruded tubing.

TOLERANCES FOR SPECIAL EXTRUDED SHAPES							
		TOLERANCES OF MANDREL CURED ITEMS			TOLERANCES OF OTHER CURED ITEMS		
SIZES		INSIDE DIAMETER			INSIDE DIAMETER		OUTSIDE DIAMETER	
Millimeters	Inches (approx.)	Millimeters		(Inches)	+ Millimeters	(Inches)	+ Millimeters	(Inches)
0 to 9..99	0.00 - 0.399	+ 0	-0.25	(0.010)	0.51	(0.020)	0.78	(1/32)
10 to 15.99	0.40 - 0.629	+ 0	-0.31	(0.012)	0.78	(1/32)	1.19	(3/64)
16 to 24.99	0.63 - 0.999	+ 0	-0.40	(0.016)	0.78	(1/32)	1.19	(3/64)
25 to 39.99	1.00 - 1.599	+ 0	-0.50	(0.020)	1.19	(3/64)	1.69	(1/16)
40 to 62.99	1.60 - 2.499	+ 0	-0.63	(0.025)	1.19	(3/64)	1.69	(1/16)
63 to 100.00	2.50 - 4.000	+ 0	-0.80	(0.032)				

Downloaded from http://www.everyspec.com

TABLE VII. Commercial tolerances for calendered sheets.

TOLERANCES FOR CALENDARED SHEETS			
DIMENSIONS		TOLERANCES	
Millimeters	Inches (approximate)	Millimeters	Inches
0 to 0.99	0 to 0.039	± 0.18	± 0.007
1.00 to 1.74	0.04 to 0.069	0.30	0.012
1.75 to 3.39	0.07 to 0.134	0.43	0.017
3.40 and over	0.135 and over	0.56	0.022

3.7 Marking. Unless otherwise specified (see 7.2), sheet material and strips (cut from sheet) shall be marked with the following information: CID number, class, grade, designation, and the supplier's designations. The class and grade designations, separated by a dash, shall be enclosed within parentheses. The markings shall be legible and placed in rows of constantly recurring symbols from one end of the sheet to the other, spaced approximately 5 inches apart. The supplier's designation shall appear immediately below the constantly recurring CID symbols. The symbols shall be legible, and shall be not less than 3/8 inch high. Symbols shall be marked using white colored marking fluid for other than white silicones, and black colored marking fluid for white colored silicones. The markings shall not be obliterated by normal handling or by the action of petroleum-base oils.

3.8 Workmanship. The end product shall be clean, smooth finished, free from dirt, flash or rough edges, to the extent permitted by the acceptable quality levels in section 5.

4. REGULATORY REQUIREMENTS

4.1 Health, safety, and environment. The silicone rubber products shall adhere to all federal, state, and local health, safety, and environmental regulations. No environmentally prohibited material or components shall be used in manufacturing, finishing, or packing the products.

4.2 Recycled materials. The supplier or contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

5. PRODUCT CONFORMANCE PROVISIONS

5.1 Product conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and are the same products offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

5.1.1 Test data. The supplier or contractor shall provide test data or lab results, of meeting the salient characteristics and special requirements, when specified by the procuring activity in the contract or purchase order (see 7.2).

5.1.2 Warranty. The supplier or contractor shall provide a warranty of replacing defective

Downloaded from http://www.everyspec.com

items as a special requirement (see 7.2), when specified by the procuring activity in the contract or purchase order.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order (see 7.2). When no special packaging requirements are specified, ASTM D 3951 packaging guidance applies.

7. NOTES

7.1 Source of documents.

7.1.1 ASTM Standards are available from the American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

7.1.2 SAE Standards are available from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

7.1.3 RMA Specifications are available from the Rubber Manufacturers Association, 1400 K Street, NW, Suite 900, Washington, DC 20005.

7.2 Ordering data. The contract or order should specify the following:

a. Title, number, and date of this document.
b. Class and grade required (see 2).
c. Product conformance provisions (see 5.1).
d. Special marking requirements (see 3.7 and 6).
e. Packaging requirements (see 6).
f. Extruded tubing requirements (see 3.5).
g. Color required, if other than natural color of compound furnished (see 3.6).
h. Dimensions and tolerances (see 3.4).
i. Form, with dimensions, required (see 3.3).
j. Test data requirements (see 5.1.1).
k. Warranty requirements (see 5.1.2).

7.3 Slash sheet conversion. As a cross reference to previous slash sheets for ZZ-R-765, that have been converted to CIDs, table I provides a listing of the corresponding CIDs to the slash sheets. The numbering scheme noted with the titles of the CIDs, specifically the shape numbers, corresponds directly to the former slash sheet numbers for ZZ-R-765 (for example, ZZ-R-765/10, is represented as CID A-A-55754, Rubber Silicone, Round Section, Shape 10 in table I).

7.4 Intended use. The silicone rubber covered by this specification is intended generally for use under the conditions listed below. Users should, however, consider all the requirements of this specification when selecting a class and grade of silicone rubber.

Class 1 - Where resistance to extreme low temperature is required (to approximately -73°C (-100°F)). Class 1 material also possesses resistance to extreme high temperature (to approximately 219°C (425°F)), but length of service at high temperatures is less

Downloaded from http://www.everyspec.com

than that of the class 2 materials. The class 1B material also possesses low compression set at high temperature.

Class 2 - Where resistance to extreme high temperature is required (to approximately 219°C (425°F).
Class 2 material possesses low temperature resistance, but only to about -62°C (-80°F).
Class 2B material also possesses low compression set.

Class 3A - Where resistance to extreme low temperature (to approximately -75°C (-103°F)), and resistance to tearing and flexing are required. Class 3A material also possesses resistance to extreme high temperature, to approximately 204°C (400°F).

Class 3B - Where resistance to tearing and flexing are required, but the resistance to extreme low temperature requirement is less than that of the class 3A material. Temperature range for the class 3B material is approximately between -70°C (-94°F) and 204°C (400°F).

7.5 Part identification number (PIN). The following PIN procedure is for government purposes and does not constitute a requirement for the contractor.

This example describes a part numbering system for CID A-A-XXXX.

A-A-XXXX-1A25

- 25 — Grade - 25, 30, 40, 50, 60, 70, 80
- A — Class - 1A, 1B, 2A, 2B, 3A, 3B
- XXXX — CID number

MILITARY INTERESTS:

Custodians
Army - MR
Navy - AS
Air Force - 11

Reviewers
Army - AR, CR, CR4, GL, MD, MI, SM
Navy - OS, SH, YD
Air Force - 82, 99

CIVIL AGENCY COORDINATION ACTIVITY:
GSA-FSS

Preparing activity:
DLA-GS

(Project 9320-0333)