

**NOTES:**

1. THE CONTRACTOR MAY SELECT EITHER MATERIAL CODE COMBINATION M1 OR M2, THE COMBINATION SELECTED SHALL BE THE MATERIAL USED FOR THE ENTIRE PRODUCTION.
2. THE CONTRACTOR MAY USE REGRIND MATERIAL PRODUCED FROM FLASHING REMOVED FROM PREVIOUSLY PROCESS PARTS. THE AMOUNT OF REGRIND USED SHALL NOT EXCEED 45 PERCENT BY WEIGHT OF THE TOTAL MIX.
3. THE MATERIAL CODE AND THE YEAR THE DIVIDER WAS MOLDED (LAST 2 DIGITS) SHALL BE RECESSED INTO THE DIVIDER (SAMPLE, **M2 90**). SEE APPROPRIATE DRAWING FOR LOCATION. THE MATERIAL CODE FOR DIVIDERS MOLDED PRIOR TO 1990 WAS M1. THOSE DIVIDERS ARE DISTINGUISHED BY NOT HAVING A MATERIAL CODE AND YEAR NEAR THE NSN.

REVISION			APPROVED	
LTR.	DESCRIPTION	ENG.	BY	DATE
XA	COMPLETE REVISION: NEW MATERIALS, ADD SHEETS 1 AND 3	JMS	MICHELS	88-01-14
-	PRODUCT BASELINE ERR M0A2185 / 90-10-26	JMS	MICHELS	90-10-26
A	ECP R22K3009 - NOR 002 / 22-09-12	QT	FIEFFER	24-05-01

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

MATERIAL CODE	PART NO.	DRAWING NO./SHEET	PERCENT OF MIX BY WEIGHT	MATERIAL
M1	AC200000408-1	AC200000408, 2 OF 4	96	EXTRA HIGH MOLECULAR WEIGHT HEXENE COPOLYMER
	AC200000408-2	AC200000408, 3 OF 4	4	COLOR CONCENTRATE W/ ULTRAVIOLET STABILIZER
M2	AC200000408-3	AC200000408, 4 OF 4	96	HIGH DENSITY POLYETHYLENE COPOLYMER
	AC200000408-2	AC200000408, 3 OF 4	4	COLOR CONCENTRATE W/ ULTRAVIOLET STABILIZER

SHEET	REVISION
1 OF 4	A
2 OF 4	A
3 OF 4	A
4 OF 4	A

**PART NO. AC200000408**

**DISTRIBUTION STATEMENT A:**

APPROVED FOR PUBLIC RELEASE;  
DISTRIBUTION IS UNLIMITED.

		UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES		DATE <b>88-01-14</b>		DESIGN ACTIVITY U.S. ARMY COMBINED ARMS SUPPORT COMMAND DEFENSE AMMUNITION CENTER (DAC) MCALESTER, OKLAHOMA 74501-9053	
		TOLERANCES: .XX ±.06    .XXX ±.005    / ±0°15'    FRACTIONS ±1/64		DFTSMN. CHECKER PROJ. ENGR. <b>JMS SPRAGUE</b>		BLOW MOLD MATERIAL, AMMUNITION RESTRAINT SYSTEMS, UNPACKAGED	
		REMOVE ALL BURRS AND SHARP EDGES .010 R OR CHAMFER MAX.		SJM/DEV SUBMITTED <b>T. J. MICHELS</b> CHIEF, TRANSPORTATION ENG. DIV.			
AC200000591		MATERIAL		WILLIAM F. ERNST ASSOCIATE DIRECTOR FOR ENGINEERING DIRECTORATE APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIAL COMMAND		SIZE <b>C</b>	REV. <b>A</b>
AC200000438				<b>JOHN L. BYRD JR.</b> DEFENSE AMMUNITION CENTER		CAGE <b>28620</b>	DRAWING No. <b>AC200000408</b>
AC200000403						SCALE NONE	SHEET 1 OF 4
AC200000402						UNIT WT	
NEXT ASSEMBLY	USED ON	APPLICATION					

**NOTES:**

1. MATERIAL MEETS ASTM D1248-TYPE III, CLASS 5, CATEGORY 5.
2. PHYSICAL PROPERTIES REPORTED IN TABLE II WERE DETERMINED ON COMPRESSION MOLDED SPECIMENS PREPARED IN ACCORDANCE WITH PROCEDURE C OF ASTM D4703.
3. 375°F (190°C) 21,600 g LOAD (SOMETIMES REFERED TO AS HLMI OR 10X)
4. CERTIFICATE OF MATERIAL CONFORMANCE:
  - A. A CERTIFICATE SHALL BE SUBMITTED BY THE SUPPLIER THAT THE MATERIAL SUPPLIED CONFORMS TO THE NOMINAL PHYSICAL PROPERTIES SHOW ON THE LATEST DATA SHEET SUBMITTED. THIS CERTIFICATE IS BASED ON TYPICAL VALUES OBTAINED FROM PERIODIC TESTING OF RANDOM LOTS OF THE SAME PRODUCT.
  - B. THE CERTIFICATE SHALL INCLUDE SPECIFIC DATA FOR EACH LOT OFFERED AS FOLLOWS:
    1. NAME AND ADDRESS OF SUPPLIER
    2. PURCHASE ORDER NUMBER
    3. IDENTIFICATION OF MATERIAL (LOT NUMBER)
    4. LATEST NOMINAL PHYSICAL PROPERTIES (SEE 4A ABOVE)
    5. QUANTITY OF MATERIAL
    6. MELT FLOW, D1238, FOR THE SPECIFIC LOT
    7. DENSITY, D1505, FOR THE SPECIFIC LOT
    8. DATE, SIGNATURE & TITLE OF AUTHORIZED REPRESENTATIVE
  - C. THE CERTIFICATE SHALL BE FOUND TO BE COMPATIBLE WITH THE DATA IN TABLE II. MILITARY SPECIFICATION MIL-R-48664 (AR) APPLIES.
5. ONLY THE ITEMS DESCRIBED ON THIS DRAWING WHEN PROCURED FROM THE VENDOR(S) LISTED HEREON IS APPROVED BY THE DEFENSE AMMUNITION CENTER, ATTN: ATCL-ACE, MCALESTER OK 74501-9053 FOR USE IN THE APPLICATION(S) SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY THE DEFENSE AMMUNITION CENTER.
6. IDENTIFICATION OF THE APPROVED SOURCE(S) OF SUPPLY HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY AS A SOURCE OF SUPPLY FOR THE ITEM(S).

REVISION			APPROVED	
LTR.	DESCRIPTION	ENG.	BY	DATE
XA	ADD TOLERANCES TO REQUIREMENTS	JMS	MICHELS	86-08-15
XB	MODIFY GENERAL TOLERANCE BLOCK, ADD SHEET 1 AND 3	JMS	MICHELS	86-11-05
XC	COMPLETE REVISION; NEW MATERIAL	JMS	MICHELS	88-01-14
XD	ADD CERTIFICATE OF MATERIAL CONFORMANCE	JMS	MICHELS	88-02-10
-	PRODUCT BASELINE ERR M0A2185 / 90-10-26	JMS	MICHELS	90-10-26
A	ECP R22K3009 - NOR 002 / 22-09-12	QT	FIEFFER	24-05-01

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

TABLE II MARLEX HXM50100 EXTRA HIGH MOLECULAR WEIGHT HEXENE COPOLYMER NOMINAL PHYSICAL PROPERTIES			
PROPERTY	ASTM TEST METHOD	SI	
		UNITS	VALUE
DENSITY	D1505	g/cc	0.950 + .005
MELT FLOW, CONDITION F (SEE NOTE 3)	D1238	g/10 MIN	7.5 to 11
FLOW INDEX, CIL, 375°F (190°C) 1500 psi (10.4 MPa) (SEE NOTE 3)	-----	g/10 MIN	0.8
ENVIRONMENT STRESS CRACKING (ECSR) CONDITION A, F	D1693	h	800
TENSILE YIELD STRENGTH 2" (50MM) PER MIN.	D638 TYPE IV	MPa	26
ULTIMATE ELONGATION, 2" (50MM) PER MIN.	D638 TYPE IV	PERCENT	>600
BRITTLNESS TEMPERATURE	D746	°C	<-118
FLEXURAL MODULUS	D790	MPa	1206

APPROVED SOURCE(S) OF SUPPLY		
SUPPLIER DATA		
CAGE	PART NUMBER	NAME AND ADDRESS
46935	MARLEX HXM50100	PHILLIPS PETROLEUM CO. 758 ADAMS BLDG 4 <sup>th</sup> AND KEELER BARTLESVILLE, OK 74004

**DISTRIBUTION STATEMENT A:**

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DISTRIBUTION IS UNLIMITED.

**SOURCE CONTROL DRAWING  
PART NO. AC200000408-1**

DATE <b>86-03-01</b>			DESIGN ACTIVITY U.S. ARMY COMBINED ARMS SUPPORT COMMAND DEFENSE AMMUNITION CENTER (DAC) MCALESTER, OKLAHOMA 74501-9053		
DFTSMN. <b>JMS</b>	CHECKER	PROJ. ENGR. <b>SPRAGUE</b>	BLOW MOLD MATERIAL, AMMUNITION RESTRAINT SYSTEMS, UNPACKAGED		
SJMAG-DEV	<b>T. J. MICHELS</b> CHIEF, TRANSPORTATION ENG. DIV.				
SUBMITTED <b>WILLIAM F. ERNST</b> ASSOCIATE DIRECTOR FOR ENGINEERING DIRECTORATE APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIAL COMMAND					
JOHN L. BYRD JR. DEFENSE AMMUNITION CENTER			SIZE <b>C</b>	CAGE <b>28620</b>	DRAWING No. <b>AC200000408</b>
SCALE NONE			UNIT WT	SHEET 2 OF 4	REV. <b>A</b>

**NOTES:**

1. THE COLOR CONCENTRATE SHALL BE OLIVE DRAB MATCHING ANY ONE OF THE FOLLOWING COLOR OF SAE AMS-STD-595; -34052, -34070, -34086, -34087, -34096 OR -34102.
2. TO RETARD SUN DEGRADATION, ULTRAVIOLET STABILIZER SHALL BE ADDED INTO THE COLOR CONCENTRATE. THE COLOR CONCENTRATE SUPPLIER SHALL CERTIFY THAT THE ULTRAVIOLET STABILIZER CONSIST OF 0.3 PERCENT TINUVIN 770 (ULTRAVIOLET ABSORBER) AND 0.05 PERCENT IGRANOX 1076 (ANTI-OXIDANT) BASED ON A 4.0 PERCENT COLOR LET DOWN.
3. THE BASE MATERIAL SHALL BE POLYETHYLENE.
4. CERTIFICATE OF MATERIAL CONFORMANCE:
  - A. A CERTIFICATE SHALL BE SUBMITTED BY THE SUPPLIER THAT THE MATERIAL SUPPLIED CONFORMS TO THE REQUIREMENTS OF THIS DRAWING.
  - B. THE CERTIFICATE SHALL INCLUDE SPECIFIC DATA FOR EACH LOT OFFERED AS FOLLOWS:
    1. NAME AND ADDRESS OF SUPPLIER
    2. SUPPLIER'S PART NUMBER
    3. PURCHASE NUMBER
    4. IDENTIFICATION OF MATERIAL (LOT NUMBER)
    5. QUANTITY OF MATERIAL
    6. BASE RESIN
    7. MATCHED TO SAE AMS-STD-595 NUMBER
    8. PERCENT TINUVIN 770
    9. PERCENT IGRANOX 1076
    10. DATE, SIGNATURE & TITLE OF AUTHORIZED REPRESENTATIVE
  - C. MILITARY SPECIFICATION MIL-R-48664 (AR) APPLIES.
5. IDENTIFICATION OF THE SUGGESTED SOURCE(S) OF SUPPLY HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY AS A SOURCE OF SUPPLY FOR THE ITEM(S).

REVISION			APPROVED	
LTR.	DESCRIPTION	ENG.	BY	DATE
XA	COMPLETE REVISION: NEW MATERIALS, ADD SHEETS 1 AND 3	JMS	MICHELS	88-01-14
XB	ADD CERTIFICATE OF MATERIAL CONFORMANCE	JMS	MICHELS	88-02-10
A	ECP R22K3009 - NOR 002 / 22-09-12	QT	FIEFFER	24-05-01

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

APPROVED SOURCE(S) OF SUPPLY		
SUPPLIER DATA		
CAGE	PART NUMBER	NAME AND ADDRESS
-----	NC/4768C	PLASTIC COLOR CHIP, INC. DIVISION PMC, INC 2 CAMPUS DRIVE P.O. BOX 465 SOMERSET, NJ 08873 (800) 526 3938
-----	7-C-25881-UV	CAROLINA COLOR CORP P.O. BOX 486 SALISBURY, NC 28144 (704) 637 7000

**SPECIFICATION CONTROL DRAWING  
COLOR CONCENTRATE WITH  
ULTRAVIOLET STABILIZER  
PART NO. AC200000408-2**

**DISTRIBUTION STATEMENT A:**

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DATE <b>88-01-14</b>			DESIGN ACTIVITY U.S. ARMY COMBINED ARMS SUPPORT COMMAND DEFENSE AMMUNITION CENTER (DAC) MCALESTER, OKLAHOMA 74501-9053		
DFTSMN. <b>JMS</b>	CHECKER	PROJ. ENGR. <b>SPRAGUE</b>	BLOW MOLD MATERIAL, AMMUNITION RESTRAINT SYSTEMS, UNPACKAGED		
SJMAC-DEV	<b>T. J. MICHELS</b> <small>CHIEF, TRANSPORTATION ENG. DIV.</small>				
SUBMITTED <b>WILLIAM F. ERNST</b> <small>ASSOCIATE DIRECTOR FOR ENGINEERING DIRECTORATE APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIAL COMMAND</small>			SIZE <b>C</b>	CAGE <b>28620</b>	DRAWING No. <b>AC200000408</b>
JOHN L. BYRD JR. <small>DEFENSE AMMUNITION CENTER</small>			SCALE <b>NONE</b>	SHEET <b>3 OF 4</b>	REV. <b>A</b>

**NOTES:**

1. MATERIAL MEETS ASTM D1248-TYPE III, CLASS 5, CATEGORY 5.
2. PHYSICAL PROPERTIES REPORTED IN TABLE II WERE DETERMINED ON COMPRESSION MOLDED SPECIMENS PREPARED IN ACCORDANCE WITH PROCEDURE C OF ASTM D4703.
3. 375°F (190°C) 21,600 g LOAD (SOMETIMES REFERED TO AS HLMI OR 10X)
4. CERTIFICATE OF MATERIAL CONFORMANCE:
  - A. A CERTIFICATE SHALL BE SUBMITTED BY THE SUPPLIER THAT THE MATERIAL SUPPLIED CONFORMS TO THE NOMINAL PHYSICAL PROPERTIES SHOW ON THE LATEST DATA SHEET SUBMITTED. THIS CERTIFICATE IS BASED ON TYPICAL VALUES OBTAINED FROM PERIODIC TESTING OF RANDOM LOTS OF THE SAME PRODUCT.
  - B. THE CERTIFICATE SHALL INCLUDE SPECIFIC DATA FOR EACH LOT OFFERED AS FOLLOWS:
    1. NAME AND ADDRESS OF SUPPLIER
    2. PURCHASE ORDER NUMBER
    3. IDENTIFICATION OF MATERIAL (LOT NUMBER)
    4. LATEST NOMINAL PHYSICAL PROPERTIES (SEE 4A ABOVE)
    5. QUANTITY OF MATERIAL
    6. MELT FLOW, D1238, FOR THE SPECIFIC LOT
    7. DENSITY, D1505, FOR THE SPECIFIC LOT
    8. DATE, SIGNATURE & TITLE OF AUTHORIZED REPRESENTATIVE
  - C. THE CERTIFICATE SHALL BE FOUND TO BE COMPATIBLE WITH THE DATA IN TABLE III. MILITARY SPECIFICATION MIL-R-48664 (AR) APPLIES.
5. ONLY THE ITEMS DESCRIBED ON THIS DRAWING WHEN PROCURED FROM THE VENDOR(S) LISTED HEREON IS APPROVED BY THE DEFENSE AMMUNITION CENTER, ATTN: ATCL-ACE, MCALESTER OK 74501-9053 FOR USE IN THE APPLICATION(S) SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY THE DEFENSE AMMUNITION CENTER.
6. IDENTIFICATION OF THE APPROVED SOURCE(S) OF SUPPLY HEREON IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY AS A SOURCE OF SUPPLY FOR THE ITEM(S).

REVISION			APPROVED	
LTR.	DESCRIPTION	ENG.	BY	DATE
-	PRODUCT BASELINE ERR M0A2185 / 90-10-26	JMS	MICHELS	90-10-26
A	ECP R22K3009 - NOR002 / 22-09-12	QT	FIEFFER	24-05-01

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

<b>TABLE III</b> FORTIFLEX K44-11-121 HIGH MOLECULAR WEIGHT, HIGH DENSITY POLYETHYLENE COPOLYMER NOMINAL PHYSICAL PROPERTIES			
PROPERTY	ASTM TEST METHOD	SI	
		UNITS	VALUE
DENSITY	D1505	g/cc	0.950 + .005
MELT INDEX, CONDITION F (SEE NOTE 3)	D1238	g/10MIN	12 ±3
TENSILE YIELD STRENGTH 2" (50MM) PER MIN.	D638	MPa	>22
ULTIMATE ELONGATION, 2" (50MM) PER MIN.	D638	PERCENT	>600
ENVIRONMENT STRESS CRACKING (ECSR) CONDITION A, F <sub>50</sub>	D1693	h (MIN.)	800
FLEXURAL MODULUS	D790	MPa	>900
BRITTLENESS TEMPERATURE	D746	°C	<-75

APPROVED SOURCE(S) OF SUPPLY		
SUPPLIER DATA		
CAGE	PART NUMBER	NAME AND ADDRESS
----	FORTIFLEX K44-11-121	SOLTEX POLYMER CORP. P. O. BOX 27328 HOUSTON, TX 77227 (713) 522 1781

**SOURCE CONTROL DRAWING  
PART NO. AC200000408-3**

DATE <b>90-08-26</b>			DESIGN ACTIVITY U.S. ARMY COMBINED ARMS SUPPORT COMMAND DEFENSE AMMUNITION CENTER (DAC) MCALESTER, OKLAHOMA 74501-9053		
DFTSMN. <b>JMS</b>	CHECKER <b>KWD</b>	PROJ. ENGR. <b>SPRAGUE</b>	<b>BLOW MOLD MATERIAL, AMMUNITION RESTRAINT SYSTEMS, UNPACKAGED</b>		
SJMAC-DEV <b>T. J. MICHELS</b>	CHIEF, TRANSPORTATION ENG. DIV. <b>WILLIAM F. ERNST</b> ASSOCIATE DIRECTOR FOR ENGINEERING DIRECTORATE APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIAL COMMAND				
SUBMITTED <b>JOHN L. BYRD JR.</b> DEFENSE AMMUNITION CENTER			SIZE <b>C</b>	CAGE <b>28620</b>	DRAWING No. <b>AC200000408</b>
SCALE NONE			SHEET 4 OF 4	REV. <b>A</b>	

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