

COMPANY STANDARDS

C6003-04

TITLE :

GREASE, LITHIUM BASE, EP-2

PAGE NO.1 OF 4

DATE :

1999-12-16

0. GENERAL :

This standard provides the requirements for lithium base grease, suitable for industrial applications and for lubrication of plain as well as antifriction bearings. This type of grease contains extreme pressure (EP) additives.

This issuance supersedes C6003-04 Issue-0 dated 1991-02-06 along with its amendment.

In this issuance all the characteristics and test methods are changed in line with revised IS:7623-1993 Grade-2.

1. SCOPE :

This standard specifies the requirements, sampling and method of tests for various characteristics of extreme pressure lithium base grease.

2. REQUIREMENTS :

2.1 COMPOSITION :

The material shall consist of lithium soap, refined mineral oil, anti-oxidants, rust inhibitor and extreme pressure additives.

2.2

The material shall be smooth and homogeneous, free from objectionable odour, visible impurities and abrasive particles. The grease shall be free from resins, oils, rosinates, tar oil, grit and fillers such as asbestos, clay, talc etc, and from products gelled with bentonite and silica gel.

2.3 TESTING CONDITION :

Testing shall be conducted as per relevant parts of IS:1448 as specified in Table-1 and tests shall be conducted at $27 \pm 5^\circ\text{C}$ and R.H 50 to 70 %.

3. DESIGNATION :

This grade of grease shall be designated as lithium base EP grease and shall be procured on the basis of the stock number C600304000.

PREPARED BY :CSD
MATERIALS COMMITTEE

ISSUE NO:
ONE

REPLACEMENT FOR:

REFERENCE:

IS:7623

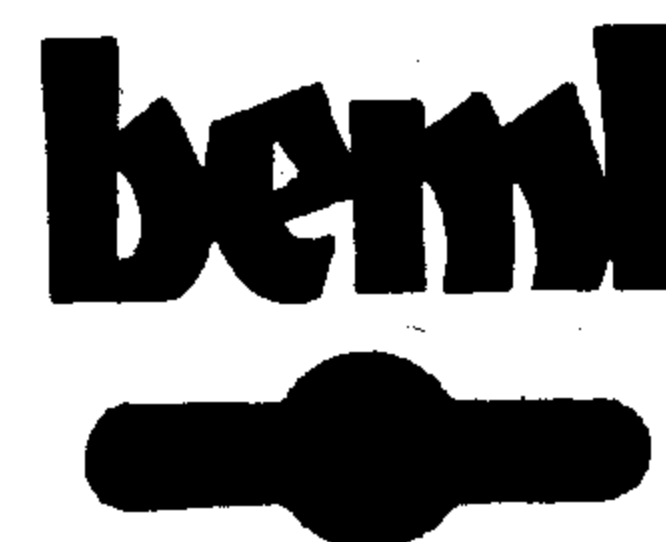
APPROVED BY :

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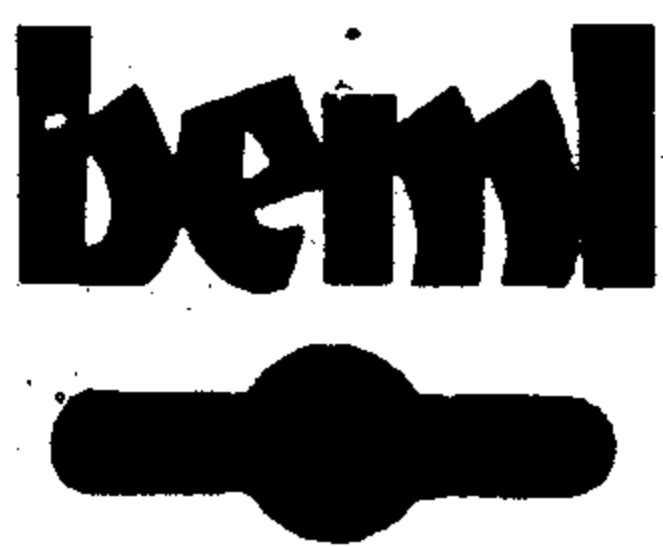
4. SAMPLING :

After receiving the supplies, sample of the material shall be drawn as prescribed in IS:1447.

TABLE-1
REQUIREMENTS

SL NO	CHARACTERISTICS	REQUIREMENTS	TEST METHOD IS:1448
01	CONSISTENCY of the worked grease at 25 ± 0.5°C a) 60 double strokes b) 100000 strokes	265 - 295 Shall not differ by more than 30 units from the 60 double - strokes	Part-60
02	DROP POINT °C, min.	180	Part-52
03	COPPER STRIP CORROSION at 100°C for 24 h	Negative	Part-51
04	LEAKAGE AND DEPOSIT FORMING TENDENCIES a) Leakage by mass g, max. b) Deposits in the Wheel bearing races or rollers	Five Shall be free from deposits	ASTM D1263
05	RESISTANCE TO WATER WASH at 80°C, % loss by mass, max.	15	Part-90
06	HEAT STABILITY % loss by mass, max.	Five	Part-89
07	OXIDATION STABILITY for 100 h Drop in pressure kg/cm ² , max.	0.70	Part-94
08	FREEDOM FROM DELETERIOUS PARTICLES, permitted No. of scratches, max.	10	Part-125

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TABLE-1 (Contd..)**REQUIREMENTS**

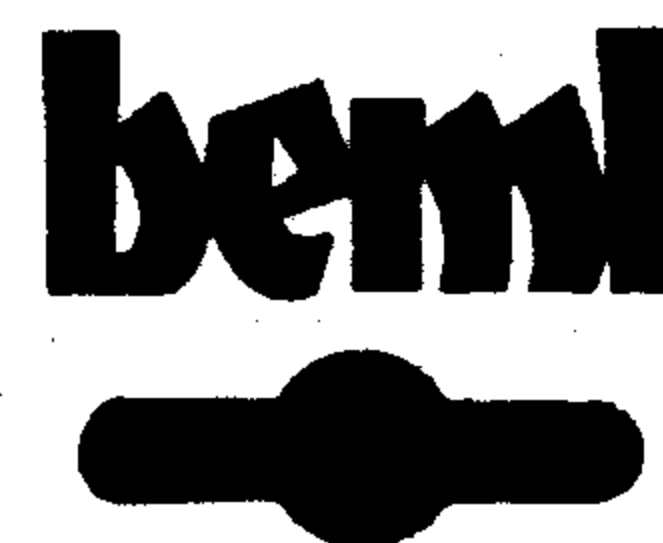
SL NO	CHARACTERISTICS	REQUIREMENTS	TEST METHOD IS:1448
09	ROLL STABILITY TEST Penetration change % after 16 h, max.	25	ASTM D1831
10	CORROSION PREVENTING TEST Rating, max.	One (Free from - corrosion)	ASTM D1743
11	FOUR BALL WEAR, SCAR DIA mm max.	0.60	ASTM D2266
12	TIMKEN O.K LOAD kg min.	20	ASTM D2509
13	IP DYNAMIC ANTIRUST TEST Rating, max.	0	IP 220/85
14	LOW TEMPERATURE TORQUE TEST, at -20°C a) Starting torque gm/cm, max. b) Running torque gm/cm, max.	5000 1000	IP 186/85
15	FOUR BALL WEAR LOAD kg min.	200	IP 239/89
17	KEEPING PROPERTIES (Stored in original sealed container under normal conditions) Year min.	One	

NOTE :

- 1) Tests from sl.no. 01 to 08 and 10 to be conducted in every sample and supply by the supplier.
- 2) All tests from sl.no. 01 to 15 to be carried out by the supplier prior to submission of the registered sample.
- 3) Tests from sl.no. 09, 11 to 15 are type tests for which manufacturers/suppliers shall give guarantee for their compliance.

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5. PACKING AND STORAGE :

The material shall be packed and stored in metal containers or any other suitable container as per Purchase Order/Contract.

6. MARKING :

The container is securely closed and marked with the following information :

- a) Company Standard Number.
- b) BEML Order No.
- c) Name of the manufacture and trade mark if any.
- d) Mass of the material.
- e) Month and Year of manufacture.

Latest standards shall be referred

-----*sdr*-----

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