

(Reg No. 2009/210498/23

2A High Street Modderfontein, Gauteng Tel: 011 608-2584 Fax: 011 608-2593

CC PG 790A

1. <u>INTRODUCTION</u>

CC PG 790A is a polyether based polyol blend which when reacted with MDI 15, yields a medium performance elastomer of 90 - 95 Shore A hardness with good hydrolytic stability.

CC PG 790A contains various additives which aid the processing of the material, and contribute to the physical properties of the cured elastomer.

2. APPLICATIONS

CC PG 790A is suitable for use in hand-mixing applications where a medium performance, elastomer is required for general purpose applications.

3. **CONSIDERATIONS**

CC PG 790A IS A BLENDED MATERIAL CONTAINING CONSTITUENTS WHICH MAY FREEZE ON PROLONGED STORAGE AT BELOW 20°C. ENSURE THAT THIS COMPONENT IS ABOVE 20°C AND MIXED THOROUGHLY BEFORE USE.

During processing, the material will experience up to 2% shrinkage due to the heat of the reaction. It is imperative to store CC PG 790A in a sealed container in order to prevent the absorption of atmospheric moisture which would cause the mixed product to foam.

As with all polyurethane products, the cured elastomer should not be exposed to very strong acids or bases. The highest temperature at which the product should be used is 80 to 85°C in order to maintain the full physical properties. The material can tolerate short period temperature increases up to approximately 120°C without permanently impairing any of the physical properties.

4. CC PG 790A PHYSICAL PROPERTIES

Appearance : White liquid

Viscosity at 25°C (cps) : 800 - 950 ASTM D1638



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5. MDI 15 PHYSICAL PROPERTIES

Appearance : Dark brown liquid

Viscosity at 25°C (cPs) : 140 - 200 ASTM D1638

Specific gravity at 25°C : 1,22

Free NCO Content (%) : 26,8 - 28,0 ASTM D1638

6. **ELASTOMERS**

The following range of physical properties will be obtained from CC PG 790A when reacted with MDI 15 at 95% stoichiometry and subjected to the correct post curing cycle.

CC PG 790A : 100 parts

MDI 15 at 25°C : 60 parts

The mix ratio is calculated by weight.

Pot Life (minutes at 23°C : 6 - 8

Demould (minutes) : 17 - 20 minutes

Hardness Shore A : 90 - 95 DIN 53505

Gel Time (minutes) : 9 for a 100g mix

DIVERSE OLIGOMERS & URETHANES CC T/A DIVERSE URETHANES

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100% Modulus (MPa) : 9,0 - 11,0 DIN 53504

Tensile Strength : 11,5 - 13,0 DIN 53504

Elongation (%) : 110 - 140 DIN 53504

Tear Strength (Picc N/mm) : 32 - 37 ASTIM D624

7. PROCESSING

- 7.1 Weigh out the components in the correct ratio and mix together thoroughly without entraining air.
- 7.2 Pour the mixture into moulds which have located with a suitable release agent. The temperature of the moulds prior to costing should be ~30°C.
- 7.3 Allow the mixture to gel and partially cure in the mould. the time required for this operation will vary according to mould design and size, but will be in the region of 30 40 minutes.
- 7.4 Demould the finished piece and post cure at ambient temperature overnight. Optimum properties are attained after a further seven days at room temperature.

8. PACKAGING

Standard packs consist of 5kg and 25kg steel drums. Larger packs are available on request.



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9. STORAGE

Should be stored in a dry environment at ambient temperatures. Prolonged or repeated heating of the material will accelerate decomposition. Partly used containers should be resealed immediately after use.

10. HANDLING

10.1 **CC PG 790A**

CC PG 790A does not represent a significant health hazard to users under normal conditions of industrial exposure. It is free of organo-mercury catalysts.

10.2 **MDI 15**

MDI 15 is an isocyanate containing material and normal standards of industrial hygiene should be observed during its handling. Safety goggles, gloves and overalls should be worn, and the material should preferably be used in a well ventilated area. Inhalation of its vapours should be avoided.

11. TOXICITY

MDI 15 is harmful by ingestion.

12. FIRST AID MEASURES

12.1 **CC PG 790A**

In the case of skin contact with CC PG 790A, the affected area must be washed with soap and water. Eye contamination should be treated by rinsing with running water for at least 10 minutes. Seek medical assistance. (See attached Safety Data Sheet).



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12.2 **MDI 15**

MDI 15 may be dermatitic and exhibit a low order of oral toxicity, however, since it is possible that certain individuals may be unusually sensitive to this material, it is recommended that all users wash thoroughly and avoid prolonged and repeated contact. Eye contamination, will cause severe irritation and pain. Immediate rinsing with water must be initiated and continued for at least 10 minutes. (See attached Safety Data Sheet.) Seek medical assistance.

13. FIRE

Keep drums cool by spraying them with water if they are exposed to fire. Extinguish with dry chemical, foam, sand or water spray.

14. SPILLAGES AND WASTE DISPOSAL

14.1 **CC PG 790A**

Drum as much as possible of the spill, and wash away the remains with copious amounts of water.

14.2 **MDI 15**

Decontamination can be affected by overnight contact with liberal amounts of a solution containing methanol (30 parts), water (70 parts), concentrated ammonia (1 part) and detergent (1 part). Drums should not be resealed until decontamination is complete. (See attached Safety Data Sheet on details for Dealing with Larger Spills.)

14.3 Waste Disposal

Customers are advised to check their local, provincial or national legislation governing the disposal of waste material.

MDI 15 is an isocyanate containing material and is considered hazardous by inhalation.

The information provided in this data sheet and otherwise supplied to users is based on our general experience and upon tests which are believed to be reliable However, because we have no control over the exact manner in which the information is used, we cannot guarantee the results to be obtained. Furthermore we make no express or implied warranty of merchantability or fitness of the product for a particular use.

The information contained in this data sheet is correct and accurate to the best of our knowledge but without warranty or liability.

All tests are carried out according to the standard methods used by Diverse Urethanes and details may be supplied on request.

All sales of this product shall be subject to Diverse Urethanes' Standard Condition of Sales.