

**DMR-503 Replication Putty** is a two-part silicone elastomer with the consistency of a workable paste in a one-to-one mix. It is mixed by kneading with the fingers and is non-hazardous. Once mixed, DMR-503 can be pressed onto the object to be replicated and will cure rapidly at room temperature into a firm elastomer with a Shore A Durometer of 50, and a dimensional accuracy of 99.95%.

DMR-503 is designed for applications where a non-liquid replication material is needed.

#### Advantages of the DMR-Series Flexible Replication Systems

- Quick and easy to mix & use
- A replication material for any application
- Cures fast at room temperature
- Leaves no film or residue
- Safe to use
- Accurate dimensional qualities (minimal cure shrinkage)
- Indisputable physical evidence - a permanent record
- Can be used with optical comparitors for dimensional measurements

Available in two, eight and ten pound kit sizes (total weight of hardener and base).

**DMR-503** is a product from the DYNAMOLD range.

### USES

For fast setting, dimensionally stable measurement of tooling, mold making dies, gears, prototype tooling, production parts, surface finish replications and a number of other applications.

Excellent for measuring wear on moving parts, production pieces against specification tolerances, overall quality of machined or plated surfaces, in conjunction with use of optical comparators, and corrosion pitting.

### DIRECTIONS FOR USE

- Mix in a ratio of 1 part side A to 1 part side B, by weight or volume measurement.
- Knead together until the material is a uniform colour, with no visible streaking.
- Release treat all surfaces with appropriate **non-silicon** release agent.
- Press into or on the object to be replicated, being careful not to entrap air. On some finely detailed parts, some manipulation of the putty may be required in order to obtain the best replica.

- **Cure rate is 15-20 minutes.** This may vary with ambient temperature or temperature of the surfaces that the material contacts.
- Shrinkage is 0.1% on cure.

If latex comes into contact with DMR-503, there is a possibility that the cure could be inhibited. The use of gloves other than latex is recommended when mixing or handling.

## TECHNICAL CHARACTERISTICS

Appearance . . . . .	Uniform light green (mixed, uncured)
Consistency . . . . .	Workable putty (mixed, uncured)
Work Time . . . . .	3 minutes @ 80°F (mixed, uncured)
Flash point . . . . .	>194°F (90°C)
Tensile strength (psi) . . . . .	350 (mixed 1:1 ratio, cured 20 mins @ 80°F)
Elongation (%) . . . . .	100 (mixed 1:1 ratio, cured 20 mins @ 80°F)
Tear strength (ppi) . . . . .	40 (mixed 1:1 ratio, cured 20 mins @ 80°F)
Temperature range . . . . .	-80°F to 380°F (mixed 1:1 ratio, cured 20 mins @ 80°F)
Odour . . . . .	Slight

## PRECAUTIONS FOR USE AND STORAGE

Handling: Vinyl gloves are recommended (**do not use latex gloves as the curing process may be inhibited**) to protect hands and fingernails from putty residue. Wear apron and footwear impervious to this material.

Other substances that could possibly inhibit the cure of DMR-503 include chlorinated solvents, some adhesive tapes, some solvent carriers, most clay or clay based products, sulphur cure-organic rubber, amines-epoxy-TDI urethanes, some polyester gel coats and paints, condensation cure silicone RTV & urethane, composite pre preg, acetone, MEK, methyl chloride, some soaps and hand care products. There may be other substances that could cause difficulty, and **not all of the above items will cause problems in every instance.**

Use with adequate ventilation.

Storage: Do not store above 49°C/ 120°F. Keep containers tightly closed and upright. Store in a cool dry location away from direct sunlight, sources of intense heat, or where freezing is possible.

Containment/ Clean Up: You will need to determine which federal, state and local laws and regulations are applicable.

For more information regarding the danger of the product, please consult the product safety data sheet. It is advised to read this document prior to use.

For professional use only.

**This technical data sheet replaces and cancels the previous one.**

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as Socomore deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Please check your local legislation applicable to the use of this product. Should you need any further information please contact us.

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