

Technical Data Sheet

DM CARTRIDGES

1 DESCRIPTION

DM Polymeric Resin Cartridges is a two-component anchor material consisting of polyester resin and hardener. The resin consists of polyester, mineral-based fillers, accelerator or binder raw materials. Benzoyl Peroxide was used as the hardener. The resin and hardener are included in two different plastic foils in the cartridge. The ends of the capsules are sealed with Aluminium clips. As the anchor bolt rotates through the hole and moves ahead, the two components mix thus the chemical reaction begins and cures at the time set to complete the reaction.

2 AREAS OF USAGE

- ❖ Mining, Tunnel, and Underground structures,
- ❖ It is used for anchoring and anchoring heavy equipment in general construction works.

3 APPLICATION METHOD

A typical example for the application:

For an anchor with a diameter of 22 mm and a length of 2.4m, a hole with a diameter of 27 mm and a length of 2.35 m is drilled. Several cartridges with a total length of 1,250mm are placed into the hole. If there are cracks or gaps in the rock, 20% more Cartridge is recommended.

The rotation of the anchor bolt should be 450 rpm and the maximum speed should be 4 m/minute during the placement of the anchor bolt.

4 TECHNICAL SPECIFICATIONS

The following values were determined as a result of the tests carried out in the test laboratories. Ambient and ground temperature during the application affect reaction time. At low temperatures, the reaction slows down and it prolongs the operation. Except for our fast and slow standard products, the curing time can be adjusted from 10 seconds to 20 minutes according to the needs of customer.

DM YAPI ve MADEN KİMYASALLARI
KİMYEVİ ÜRÜNLER İTH. İHR. TİC. ve SAN. LTD. ŞTİ

Güllüce Mh. 2 Nolu Cadde Tahir Kangal Sitesi No:18
Mustafakemalpaşa / BURSA



	Fast	Slow
Curing time / 25 ° C	15" – 25"	2.2' - 6'
Compressive strength, after 24 hours / 25 ° C	Cannot be measured	>70 Mpa
Compressive strength, after 24 hours / 40 ° C	Cannot be measured	>80 Mpa
E-Module	Cannot be measured	>15 Gpa
Average density	2.044 kg/m ³	2.044 kg m ³

As shown in the table below, the curing time will be slower than normal at low temperatures and faster at higher temperatures.

Temperature	Fast Cartridge curing time / Second	Slow Cartridge curing time / Minute
10 °C	45" – 65"	7' - 12'
15 °C	35" – 50"	5' - 9'
20 °C	25" – 35"	3' - 6'
25 °C	15" – 25"	2,2' - 6'
30 °C	12" – 18"	2' - 4'
35 °C	11" – 15"	1,5' - 3'
40 °C	10" – 12"	1' - 2'

Standard cartridge sizes and packaging information:

Curing time	Diameter (mm)	Length (mm)	Volume (ml)	Packaging	Pcs / Cardboard	Weight (kg) Cardboard	Pcs Pallet	Weight (kg) Pallet
Fast	24	300						
Fast	24	500						
Fast	24	600						
Fast	25	300						
Fast	25	500						
Fast	25	600						

Apart from the standards, Cartridges with different diameters and sizes can be manufactured according to the needs of the customer.

Cartridges are stored and transported in rigid and durable cardboard packaging that comply with European standards.

5 WARNINGS AND PRECAUTIONS

The risks and recommended precautions provided in the material safety data sheet must be taken into account.

6 STORAGE AND EXPIRATION DATE

Cartridges should be stored in a dry, cool, well-ventilated area away from direct sunlight. Adverse storage conditions affect the life cycle of the Cartridge. For example, Cartridges may lose their hardness and cause difficulty when placing them into the hole.

Cartridges can be stored at 5 °C - 20 °C for 6 months in dry air. At temperatures above 25 °C, they should not be stored for more than 3 months.

7 WASTE DISPOSAL

Damaged or unused, or expired Cartridges can be disposed of as domestic waste without damaging the environment by mixing two components in the Cartridges and hardening them together.

8 QUALITY AND CERTIFICATES

The raw materials are carefully selected to ensure excellent performance and consistency. Suppliers must certify that their raw materials meet the quality requirements.

Manufactured Cartridges are subjected to the following quality tests. In addition, tensile testing is carried out with specially designed test equipment at certain intervals.

Test content

- Curing time
- Solid Matter content
- Catalyst and Resin ratios in the Cartridge
- Cartridge foil welding
- Cartridge diameter
- Cartridge length

9 LEGAL DISCLAIMER

The information on this technical data sheet is based on our scientific and practical experience during the following printing process. We cannot be held responsible for any consequences other than the written recommendations on how to use or where to use the product. Please check before use that our product is appropriate for the correct use in any case. No information contained in this technical data sheet does not constitute a legal guarantee. It is clearly stated that we take responsibility for the acquisition of the product only under the terms of the contract. (07/2018)

