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Technical Specification

NITROCORD

DETONATING CORD

GENERAL INFORMATION

1. **Application in specific conditions:**
   - **NITROCORD** is destined for use in underground mines and open pit mines.
   - **NITROCORD** can not be used in conditions where a danger of coal dust and/or methane explosion exist. Exception is **NITROCORD 8**, which had separately technical specification.

2. **Information about the allowable period of storage:**
   - The shelf life of **NITROCORD** is 24 (twenty four) months from the date of manufacture.

3. **Storage conditions:**
   - **NITROCORD 6N** and **NITROCORD 10** should be stored in original package in temperature from 0 °C up to 45 °C.
   - **NITROCORD 12, 20, 25, 40, 80, 100** should be stored in original package in temperature from – 20 °C up to 50 °C.

4. **Disposal:**
   - Destruction of detonating cord wastes and explosives out of it's expiry date as well as packaging wastes can be performed only by authorized company. Detonating cord wastes should be destroyed by detonation is specially designed areas (e.g. military ranges) by using a charge which is at least 5% mass of destroyed explosive. Detonating cord containing up to 5% of explosives should be destroyed by burning in specially designed areas (e.g. military ranges).

ADDITIONAL INFORMATION

1. **Information about physical form and dimensions:**
   - Outer coat: PVC, PE or according to customer requirements
   - Coat colour: red or according to customer requirements
   - Identification threads: 2 in red colour
   - Outside diameter: according **Table 1**
   - Amount of PETN inside 1 meter: according **Table 1**
   - Length of detonating cord on spool: according **Table 1**
   - Min. acceptance length of section detonating cord on spool: 5 m for **NITROCORD 6N, 10, 12** and 3 m for **NITROCORD 20, 25, 40, 80, 100**
   - Max. acceptance amount of section on spool: 2 sections.

Table 1

Parameters	NITROCORD							
	6	**10**	**12**	**20**	**25**	**40**	**80**	**100**
Amount of PETN [g]	6,0 +0,6/-0,2	10,0 ± 1,0	12,0 ± 1,0	20,0 ± 1,5	25,0 ± 1,5	40,0 ± 3,0	80,0 ± 4,0	100,0 ± 5,0
Outside diameter [mm]	4,0 ± 0,2	5,2 ± 0,2	5,4 ± 0,2	7,0 ± 0,3	7,2 ± 0,3	8,5 ± 0,4	11,5 ± 0,5	12,0 ± 0,6
Length on spool [m]	250 ± 2,5 100 ± 1,0 50 ± 0,5	250 ± 2,5 100 ± 1,0 50 ± 0,5	250 ± 2,5 100 ± 1,0	150 ± 1,5	150 ± 1,5	100 ± 1,0	50 ± 0,5	50 ± 0,5

2. **Information about initiating sensitivity:**
   - To be sure that initiation **NITROCORD** will be proper it is recommended to initiate by detonator of minimal PETN charge 0,6 g or other blasting agent with comparable initiation ability.

3. **Information about loading conditions:**
   - **NITROCORD** can be loaded to dry and wet blasting holes.

4. **Information about application in humid conditions:**
   - **NITROCORD** can be used in humid conditions.

5. **Information about application in high and low temperature:**
   - **NITROCORD** can be used in temperature from – 20 °C up to 50 °C.

6. **Information about technical parameters:** according **Table 2.**

Table 2

Velocity of detonation	6900 m/s ± 5 % *
Sensitivity to impact, min.	10 J
Transmission of detonation on second detonating cord/cartridge	positive
Thermal stability (temperature 75 °C, 48 h)	without detonation during storage
Waterproof (after storage of 24 h under load 400 N)	full detonation after storage

* - according to PN-EN 13630-2 method

7. **Certificates:**
   - EC Type-Examination Certificate issued by Central Mining Institute in Katowice, with attachments:
   - No. **1453.EXP.05.0077 (NITROCORD 6N)**
   - EC Type-Examination Certificate issued by Federal Institute for Materials Research and Testing in Berlin, with attachements:
   - No. **0589.EXP.2643/01 (NITROCORD 10)**
   - No. **0589.EXP.3585/99 (NITROCORD 12)**
   - No. **0589.EXP.3584/99 (NITROCORD 20)**
   - No. **0589.EXP.1293/02 (NITROCORD 25)**
   - No. **0589.EXP.3560/99 (NITROCORD 40)**
   - No. **0589.EXP.0599/99 (NITROCORD 80)**
   - No. **0589.EXP.0589/99 (NITROCORD 100)**
   - Classification Certificate – No. **027/IPO-BW/2011** issued by Institute of Industrial Organic Chemistry in Warsaw.

8. **Packaging:**
   - **NITROCORD** on spools is packed into cardboard boxes. Cardboard boxes filled up with **NITROCORD** are closed by using adhesive or polypropylene tape and arranged on wooden pallets. Pallets are wrapped with stretch film.

9. **Transport guidelines:**
   - **NITROCORD** is allowed to be transported only by authorized trucks. Cardboard boxes and pallets should be arranged side by side and secured from movement during transport. Transport of **NITROCORD** by road, rail and sea must be performed in accordance with ADR, RID and IMDG regulations.
     NITROCORD is explosive (detonating cord) with:
     Proper shipping name: **CORD, DETONATING**
     UN Number: **0065**
     Class: **1**
     Classification code: **1.1D**

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