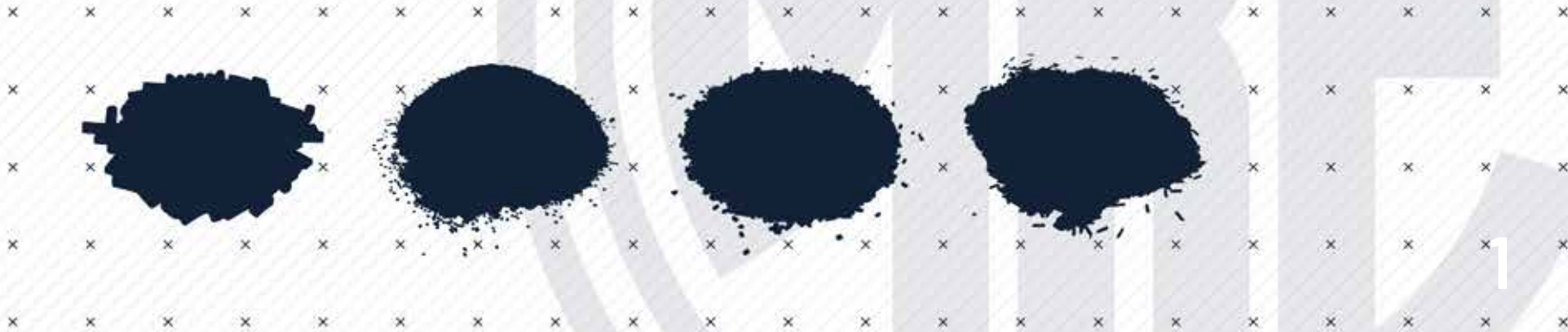


9

POWDERS / BRASS & STEEL MATERIALS



MAKİNE VE KİMYA
ENDÜSTRİSİ







POWDERS

4	POWDER NITROCELLULOSE	11	120 MM MOD 300 POWDER
4	122 MM ROCKET NITROCELLULOSE	11	155 MM MODULAR PROPELLANT POWDER
4	2,75" ROCKET NITROCELLULOSE	11	155 MM M4 A2 PROPELLING CHARGE
5	HIGH NITROGEN POWDER NITROCELLULOSE	12	155 MM M119 A2 PROPELLING CHARGE
5	ERYX CP-2 P 10 NITROCELLULOSE	12	5.56 MM BALL POWDER
5	ERYX CP-2 U 10 NITROCELLULOSE	12	5.56 MM BLANK STAR BALL POWDER
6	CBI TYPE II	13	5.56 MM TRACER CARTRIGE BALL POWDER
6	7.62 MM BLANK STAR POWDER	13	7.62 MM BALL POWDER
6	7.62 MM NATO RIFLE POWDER	13	7.62 MM M62 TRACER CARTRIGE BALL POWDER
7	7.62 MM NATO HIGH PRESSURE RIFLE POWDER	14	7.62 MM SNIPER CARTRIDGE BALL POWDER
7	12.7 MM RIFLE POWDER	14	7.62 MM KALASHNIKOV BALL POWDER
7	25 MM APDS-T POWDER	14	9 MM BALL POWDER
8	25 MM HEI-T/ TP-T PROPELLANT POWDER	15	12.7 MM X 99 SOLID CARTRIDGE BALL POWDER
8	35 MM ANTI-AIRCRAFT POWDER	15	20 MM BALL POWDER
8	35 MM AIR BURST POWDER	15	BANGER CARTRIDGE BALL POWDER
9	40 MM M9 PROPELLANT POWDER	18	155 MM MODULAR CHARGE SYSTEMS
9	40 MM M2 POWDER	19	COMBUSTIBLE (120 MM APFSDS-T; TPCSDS-T; MOD300 HE-T)
9	105 MM M1 7 PERFORATED PROPELLANT POWDER		
10	105 MM M1 SINGLE PERFORATED PROPELLANT POWDER		
10	105 MM M1 PROPELLANT (PANTER) POWDER		
10	105 MM M30 PROPELLANT POWDER		

20 BRASS & STEEL MATERIALS



ABOUT US

We produce the high-grade steel required for our weapon systems in-house at our own Steel Plant.

As for our ammunition production, we manufacture nitrocellulose—the key component—as well as various types of propellants (spherical, cylindrical), combustible cases, and combustible case adapters to meet our own demands first.

We also have the infrastructure and quality-driven approach to fulfill our stakeholders’ requests on time and at the highest standards.



NITROCELLULOSE



**POWDER GRADE
NITROCELLULOSE**



**122 MM
ROCKET
NITROCELLULOSE**



**2,75"
ROCKET
NITROCELLULOSE**

NITROCELLULOSE



**HIGH NITROGEN
POWDER
NITROCELLULOSE**



**ERYX
CP-2 P 10
NITROCELLULOSE**



**ERYX
CP-2 U 10
NITROCELLULOSE**

CYLINDRICAL POWDERS & PROPELLANTS



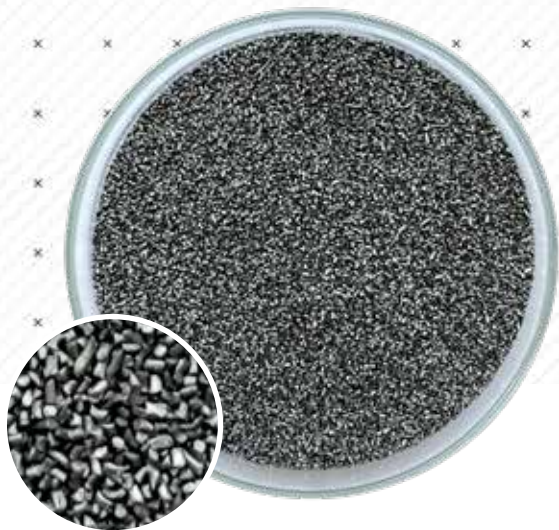
**CBI
TYPE II**

Single Based
Single Perforated



**7.62 MM
BLANK
STAR POWDER**

Single Based
Pressure Max. 2250 kg/cm2



**7.62MM
NATO
RIFLE POWDER**

Double Based
Single Perforated
Pressure 3375 Bar
Speed 838±4,6 m/s

CYLINDRICAL POWDERS & PROPELLANTS



**7.62MM
NATO HIGH PRESSURE
RIFLE POWDER**

Single Based
Single Perforated
Pressure Max. 3375 kg/cm2



**12.7 MM
RIFLE POWDER**

Double Based
Pressure 3726 kg/cm2
Speed 885±4,6 m/s

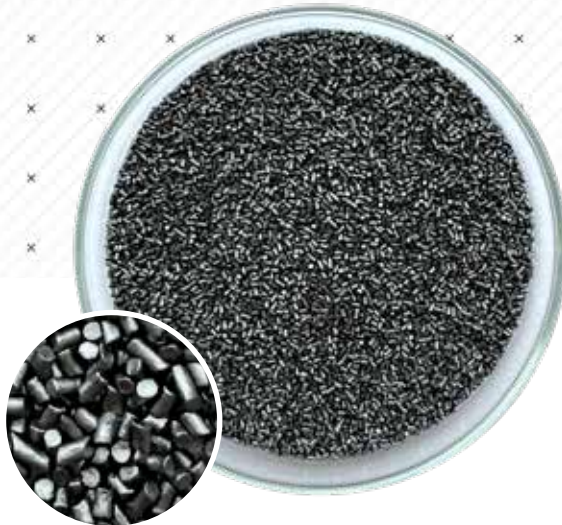


**25 MM
APDS-T POWDER**

Single Based
Single Perforated
Pressure Max. 454 MPa
Speed 1345 ± 15 m/s



CYLINDRICAL POWDERS & PROPELLANTS



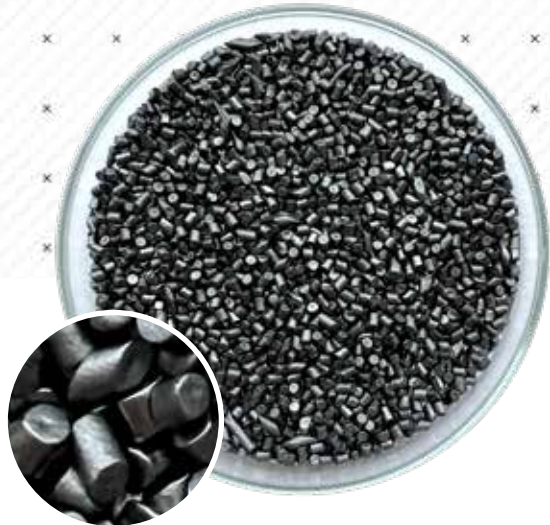
**25 MM
HEI-T/ TP-T
PROPELLANT POWDER**

Double Based
Pressure Max. 4020 Bar
Speed 1100±15 m/s



**35 MM
ANTI-AIRCRAFT
POWDER**

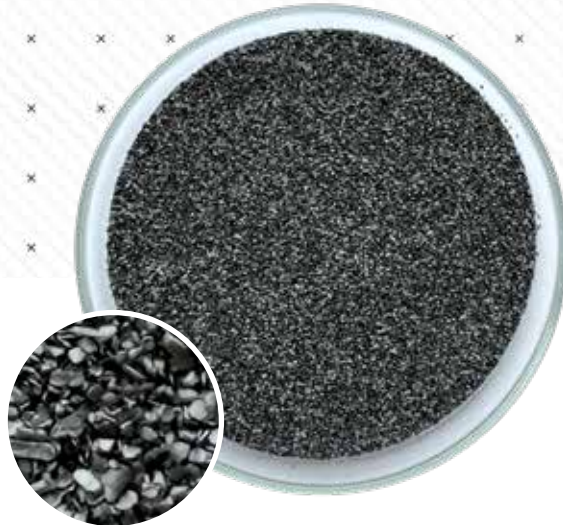
Single Based
Pressure Max. 4300 Bar
Speed 1175±15 m/s



**35 MM
AIR BURST
POWDER**

Single Based
Single Perforated
Pressure Max. 4200 bar (+44 C)
Speed 1020±10 m/s

CYLINDRICAL POWDERS & PROPELLANTS



**40 MM
M9 PROPELLANT
POWDER**

Double Based
Pressure 3700±200 Bar
Speed 75±5 m/s



**40 MM
M2 POWDER**

Double Based
Single Perforated
Pressure 400 Bar
Speed 250±12,5 m/s



**105 MM
M1 7 PERFORATED
PROPELLANT POWDER**

Single Based
Seven Perforated
Pressure Max. 2286 kg/cm2
Speed 472,4 m/s



CYLINDRICAL POWDERS & PROPELLANTS



**105 MM M1
SINGLE PERFORATED
PROPELLANT POWDER**

Single Based
Pressure Max. 2286 kg/cm2
Speed 472,4 m/s



**105 MM M1
PROPELLANT (PANTER)
POWDER**

Single Based
Pressure Max. 2230 Bar
Speed 683 m/s



**105 MM
M30 PROPELLANT
POWDER**

Triple Based
Single Perforated
Pressure Max. 4254 Bar
Speed 1485 m/s

CYLINDRICAL POWDERS & PROPELLANTS



**120 MM
MOD 300 POWDER**

Double Based
Seven Perforated
Pressure Max. 3200 Bar
Speed 870±10 m/s



**155 MM MODULAR
PROPELLANT POWDER**

Triple Based
Nineteen Perforated
Pressure Max. 4158 Bar
Speed Min. 935 m/s



**155 MM M4
A2 PROPELLING
CHARGE**

Single Based
Seven Perforated
Pressure Max. 4158 Bar
Speed 580 ± 8 m/s



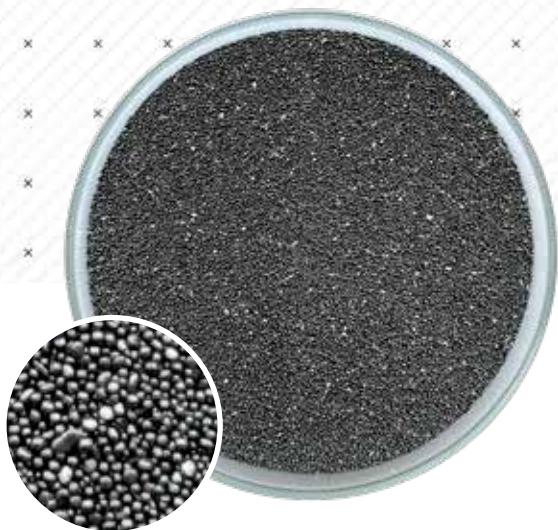
CYLINDRICAL POWDERS & PROPELLANTS



155 MM M119
A2 PROPELLING
CHARGE

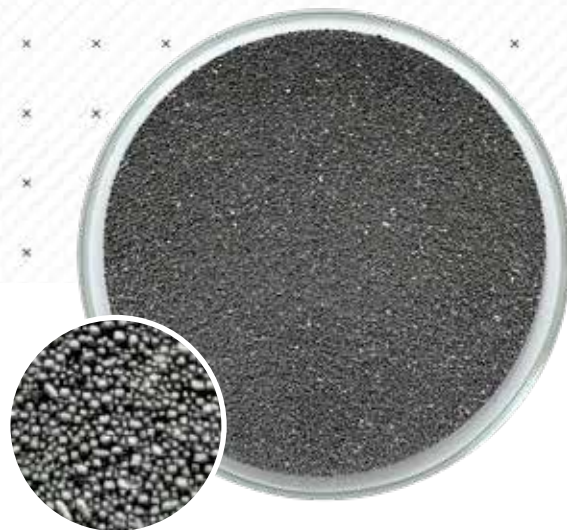
Single Based
Seven Perforated
Pressure Max 4158 Bar
Speed 695±8 m/s

BALL POWDERS



5.56 MM
BALL POWDER

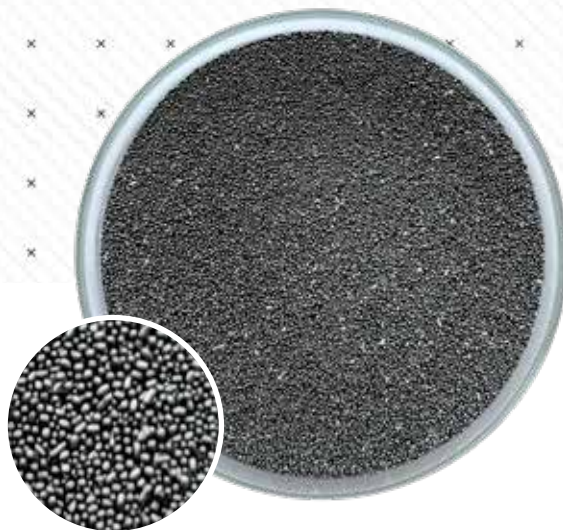
Double Based
Pressure 3909 Bar
Speed 920±6,1 m/s



5.56 MM
BLANK STAR BALL
POWDER

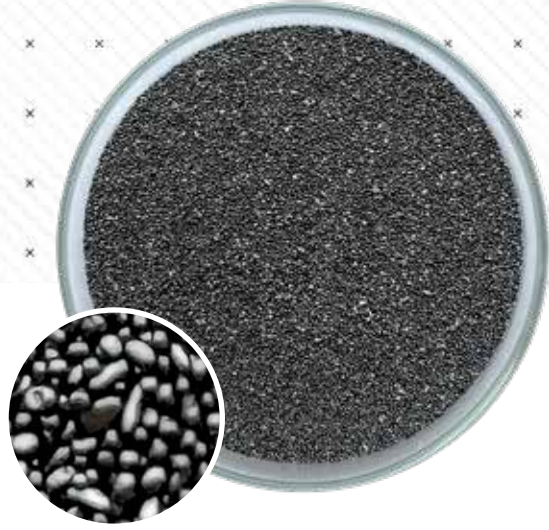
Double Based

BALL POWDERS



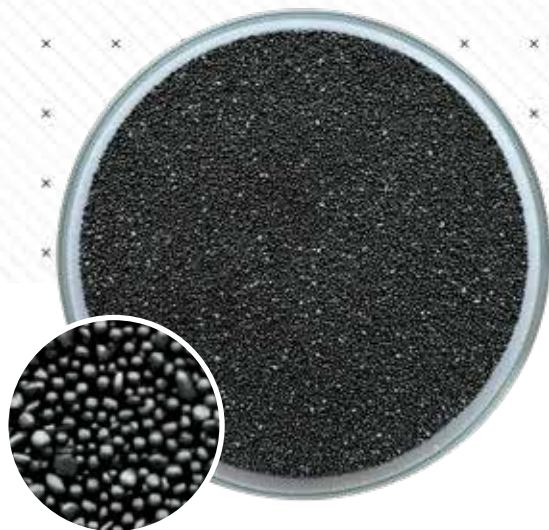
5.56 MM
TRACER CARTRIGE
BALL POWDER

Double Based
Pressure Max. 3909 Bar
Avg. Speed 917,4±6,1 m/s



7.62 MM
BALL POWDER

Double Based
Pressure Max. 3516 Bar
Avg. Speed 833±4,6 m/s

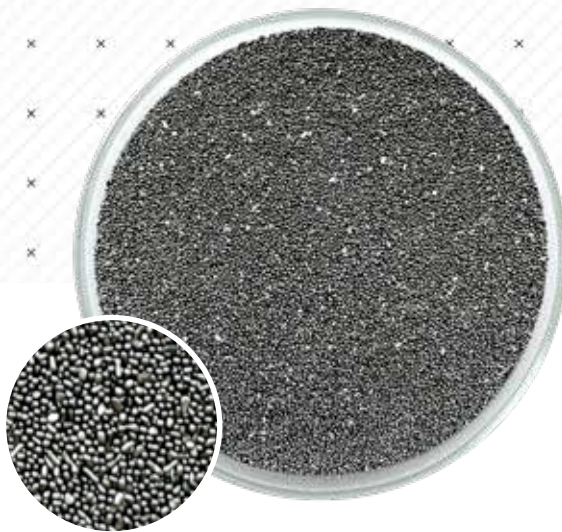


7.62 MM
M62 TRACER CARTRIGE
BALL POWDER

Double Based
Pressure Max. 3800 Bar
Avg. Speed 838±4,6 m/s

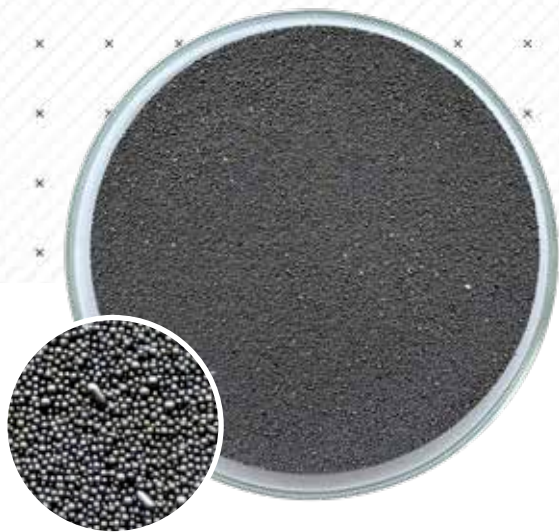


BALL POWDERS



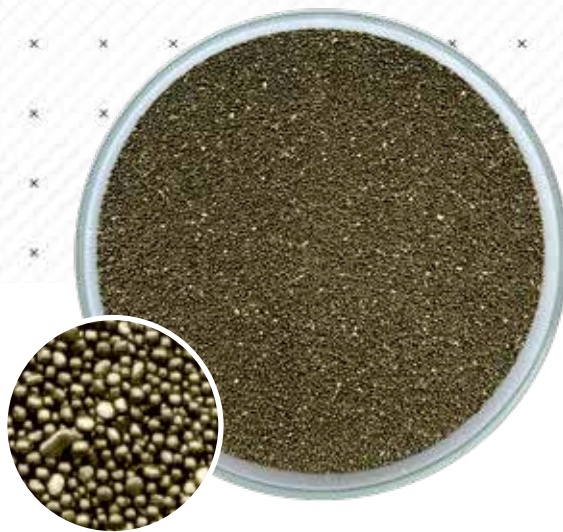
7.62 MM
SNIPER CARTRIDGE BALL
POWDER

Double Based
Pressure Max. 3585 Bar
Avg. Speed 786,4±4,6 m/s



7.62 MM
KALASHNIKOV BALL
POWDER

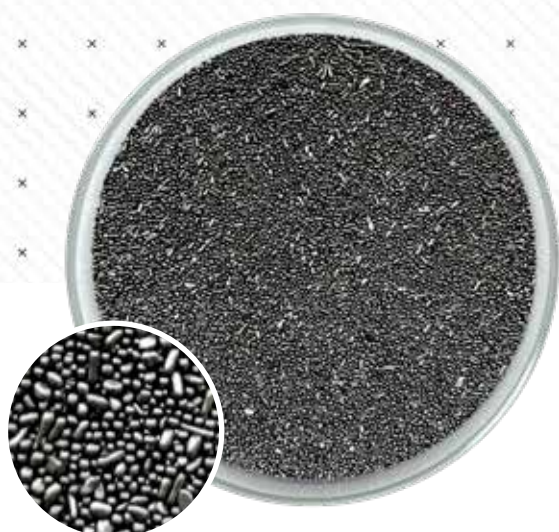
Double Based
Pressure Max. 2850 Bar
Avg. Speed 710±15 m/s



9 MM
BALL POWDER

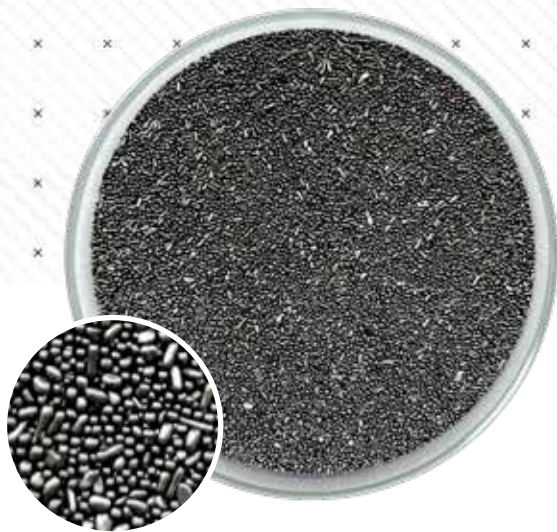
Double Based
Pressure Max. 2350 Bar
Avg. Speed 375±7,6 m/s

BALL POWDERS



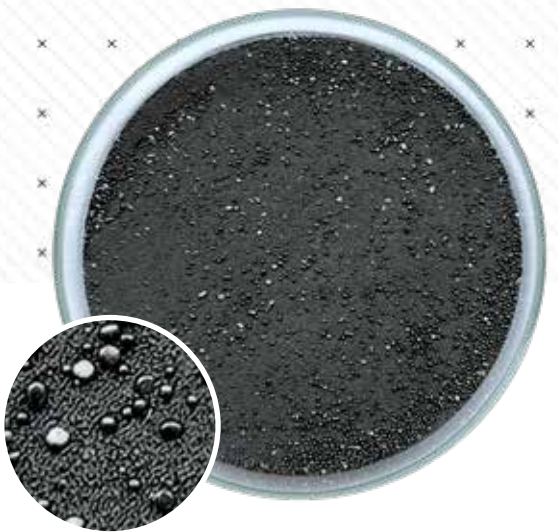
12.7 MM X 99
SOLID CARTRIDGE BALL
POWDER

Double Based
Pressure Max. 4500 Bar
Avg. Speed 845±10 m/s



20 MM
BALL POWDER

Double Based
Pressure Max. 3793 Bar
Avg. Speed 1030±7,6 m/s



BANGER CARTRIDGE
BALL POWDER

Double Based





155 MM MODULAR CHARGE SYSTEMS



**155 MM
MODULAR CHARGE
SYSTEMS**



Triple Based
First Speed Difference ≤ 5 m/s
Max. Working Pressure
4160 bar
Storage Temperature
Min. -46 °C Max. +63 °C
Max. Range Min. 39 km
Number of Modules 6
Availability
Usage with 3, 4, 5, 6 modules
Shelf Life
Min. 10 years (20±5 °C and 50±10 % Damp
Quick and Easy Loading
Bidirectional Loading
Low Inside Barrel Erosion



120 MM COMBUSTIBLE CASE



**COMBUSTIBLE
(120 MM APFSDS-T;
TPCSDS-T; MOD300 HE-T)**





BRASS & STEEL MATERIALS

22	BRASS MATERIALS
23	STEEL MATERIALS



ABOUT US

MKE Brass Factory is the first factory established for the non-ferrous metal sector of Turkey. MKE Brass Factory supplies the following products for artilleries and guns:

- Brass discs for artilleries
 - Brass rods for fuses
- Case and bullet cups for cartridges
 - Rotating bands
 - Capsule tubes
- Lead blocks with antimony for guns

MKE Brass Factory also provides semi-finished products like copper and brass rods, tubes, strips, ingots, blocks etc. for the domestic industries. The factory also carries out ammunition disposal activities for the Turkish Armed Forces. All productions are produced conforming to the EN and ASTM standards. The factory has been awarded TS EN ISO 9001:2015 and AQAP 2110 quality assurance system certificates.





BRASS MATERIALS



Case Cups (MIL C 10375 C)	Bullet Cups (MIL C 3383 B)	Brass Discs (ASTM B 19)	Rotating Bands (ASTM B 135)	Lead Blocks With Antimony (MIL L 13283 C)	Brass Rods (TS / EN / ASTM)
20 mm x 102	12,7 mm M33	105 mm Panter / M1 Howitzer	8 Inch M106	% Pb: 97,5–98,0	Cold Drawn (mm) 12-12,5-18-18,1- 26,5-36-38-51,5
12,7 mm x 99	12,7 mm M17				
9 mm x 19	9 mm x 19	Panter / M1 Howitzer	105 mm	Length (mm): 260 ± 5	
9 mm x 17	9 mm x 17				
7,65 mm x 99	7,65 mm x 99	40-76 mm	155 mm	Outer Diameter (mm): 110±2min/125±2 max	Extruded (mm) 16-30 mm 32-65 mm 70-110 mm
7,62 mm x 51	7,62 mm M118				
7,62 mm x 39	7,62 mm M80	60 mm	175 mm	110±2min/125±2 max	
7,62 mm Shrunked	7,62 mm M62				
5,56 mm x 45	7,62 mm M61	40 mm	5/38 Inch	Ağırlık (kg): 30	
5,56 mm Shrunked	5,56 mm x 45				



STEEL MATERIALS



Carbon Steels	Low Alloy Steels	Alloy Steels	Tool Steels	Brass Production
Ç1010-Ç1090	25CrMo4-42CrMo4	Ç3215-Ç3230	56NiCrMoV7	Brass TAKOZ MS 58-70
CK15-CK101	Ç4130-Ç4150	Ç3315-Ç3330	X40CrMoV5-1	
S235/S355/S460	Ç8620-Ç8650	Ç3415-Ç3435	45NiCrMo16	
Ç1330-Ç1390	Ç3115-Ç3150	Ç4320-Ç4330	45NiCrMo16-6	
ASTM A-105	16MnCr5-20MnCr5	21CrMoV5-7/21CrMoV5-11	90MnCrV8	
16Mn5-20Mn5	Ç5115-Ç5190	Ç35NiCrMoV 12-5		
17Mn4-24Mn4	100Cr6-115CrV3	32CrMoV12-10		
	65MnCrMo4	15NiCr6-45NiCr6		
	TSTE 460	30CrNiMo8		

EN10228-3 Level:3 with USM Guarantee: Rounds: 90-750mm Squares: 90-670mm Flats: 50×100 mm – 340×1000mm & Without USM Guarantee: Rounds: upto 1000mm Squares: upto 950mm Flats: upto 500×1000mm & Ingots upto 24 tons	180-200-230-250 Ø
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