Explosive reactive armour (ERA) „NEXREARM“ is armour protection system able to significantly reduce penetration of shaped charge warheads and kinetic energy projectiles, thereby ensuring the non-perforation of the tank armour and protection of the crew.

„NEXREARM“ has been tested against small arms ammunition (12.7 mm API-T), anti-tank rocket and missile (RPG-7 High explosive anti-tank, 9M113 Konkurz/AT-5 Spandrel), as well as 125 mm APFSDS and 125 mm HEAT ammunition. In addition, NEXREARM provides high level of protection against small arms, conforming to STANAG document.

The nature of NEXREARM consists of special dynamic blocks, high technology designed explosive and mechanical elements, manufactured with aim to increase:

a) Armour protection of the front hull and turret against the shaped charge warheads, artillery high explosive anti-tank projectile and armour piercing fin-stabilised discarding sabot projectile in front of the arc at turret traverse ranging ±35 ° from longitudinal axis of the tank.
b) Armour protection of the turret top against the sub-ammunition effect.
c) Protection of the armour placed on the side of the tank under shooting angle in traverse range ±20 ° in longitudinal axis of the tank.

NEXREARM characteristics

– Safe for handling
– Able to replace blocks in field condition
– Resistant against fragments and incendiary projectiles (no detonation possibility)
– Designed to guarantee no block to block detonation transition
– Applicable in temperature range from +70 °C up to -40 °C
– Total weight 2 700 kg in T72 M1 tank

Layout of ERA blocks on T-72 M1 tank

Layout of individual types of ERA blocks, their quantity and point of fixing there on hull and turret is marked with capital letter along with number index as follows:

– A1 ÷ A38 hull head
– B1 ÷ B11 hull top
– C1 ÷ C28 hull left hand side
– D1 ÷ D28 hull right hand side
– E1 ÷ E19 turret head and side
– F1 ÷ F36 turret top
ERA blocks structure:
Every block of ERA mostly consists from two basic parts as follows:
- Cover block of ERA with primary active part
- Carrying frame with secondary active part or two active parts.
- Individual blocks are proof against effects of small calibre armour piercing incendiary munitions after impact ranging from 12.7 to 30 mm calibre.
- The total weight of all blocks of ERA is 2700 kg per one tank whilst the weight of blocks there on turret is 1 170 kg. Increased weight effects have been tested in the course of qualification and user tests.