

CRASH RATINGS INFORMATION

Test methods were initially published by the U.S. Department of Defense (DoD); however, these methods have been gradually replaced with American Society for Testing and Materials International (ASTM) standards. Therefore, all crash tests will be tested under ASTM standards. The new ASTM F2656 Standard Test Method for Vehicle Crash Testing of Perimeter Barriers adds more penetration ratings, incorporates design flexibility to cover a wider range of vehicles, and specifies different impact velocities for some vehicle categories. The State Department officially adopted this standard in October 2008.

Tested: Be wary of security products that only say crash tested. A product can be tested but not pass the test or rated lower than your requirements.

Certified: A crash test certified product means that it passed the test and achieved the rating.

Engineered: Engineered products have been engineered (calculations, designed, computer model tested) to meet a particular designation within a referenced standard.


Equivalent: Because M-ratings and K-rating are so similar, a customer looking for an M50 certified product can also use a K12 certified product and achieve the same results.

US Army Corps of Engineers, Protective Design Center (PDC) maintains the *DoD ANTI-RAM VEHICLE BARRIER LIST* of barrier systems. This list is used by the Department of Defense (DoD) and other Federal agencies for certified systems. Manufactures of certified barrier systems submit test reports have been submitted to, and validated by, the Protective Design Center. Those that pass this validation are added to the DoD Anti-Ram List. View current list [HERE](#).

ASTM F2656-18 Impact Table for Standard Test Truck

Test Vehicle	Median Weight (LBS/KGS)	Impact Speed (MPH/KPH)	Kinetic Energy (FT-KIPS/KJ)	Certification Designator
Standard Test Truck (M)	15,000 lbs (6800 kgs)	30 (50)	451(656)	M30
		40 (65)	802 (1,110)	M40
		50 (80)	1,250 (1,680)	M50

ASTM F2656-18 Penetration Table

Designation (F2656 / Dos)	Dynamic Penetration Rating	Standard Test Truck (M)
P1 / L3	1m (<= 3.3 ft.)	
P2 / L2	1.01 to 7.0m (3.31 to 23.0 ft.)	
P3 / L1	7.01 to 30m (23.1 to 98.4 ft.)	

DOS STD-02.01 versus ASTM F2656/F2656M-18 designations

DOS "K" Designator	ASTM F2656 Equivalent	Sample Explanation for 30 mph Test Results Comparison K4-M30P1
K4	M30	15,000 lbs. (6,80Kg) diesel truck traveling at 30 mph with the front edge of the cargo bed traveling no more than 3.3 ft. (1m) beyond the back edge of the barrier.
K8	M40	
K12	M50	