

# FIRST TIME IN PAKISTAN

TDM BLADE CUT TESTING for



Latest Version  
of EN388-2016

ASTM F2992

ISO-13997

ABRASION  
RESISTANCE



CUT  
RESISTANCE



TEAR  
RESISTANCE



PUNCTURE  
RESISTANCE



EN 388: 2016



3 5 4 3 X P

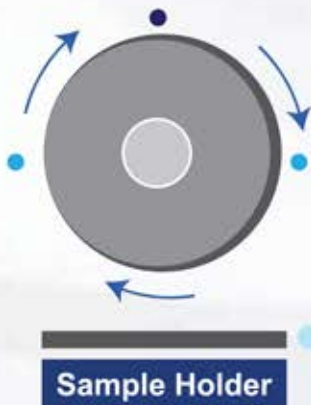
Level	EN ISO Cut Resistance in Newton Value
A	↗ 2
B	↗ 5
C	↗ 10
D	↗ 15
E	↗ 22
F	↗ 30
Optional Standard	
G	Passed optional standard for Impact Resistance



Tti Testing Laboratories

# Main Differences between EN 388 (coupe test method) & ISO 13997 TDM

PARAMETERS	EXISTING EN 388 coupe test method	PROPOSED EN ISO 13997 TDM cut test method
Machine used	Coup tester	TDM – 100
Blades shapes	Circular - rotating	Straight blades
Blades use	Remains unchanged throughout the test	Single use only
Blade travel	80 mm	20 mm
Force applied	Constant at 5 N	Increasing
Good for	Low levels of cut protection	All levels of cut protection
Cons	Not good for gloves that have glass or steel the blade gets blunted after coming in contact inconsistent to the actual performance of the material- resulting in unusually high scores for such gloves.	used after every cut. Each cut uses a new blade, and the test becomes expensive
Scores defined	Cut index	Newtons
Levels	5 (numbers)	6 Letters (A TO F)



- Fixed Force applied from above
- Linear Movement of Blade
- Fabric Sample

Performance level	Index Value
1	≥ 1,2
2	≥ 2,5
3	≥ 5
4	≥ 10
5	≥ 20

## EN 388 guide, according to the EN 1399 TDM cut test method.

Performance Level Rating	LOW Cut Protection Level	MEDIUM Cut Protection Level	HIGH Cut Protection Level		EXTRA HIGH Cut Protection Level	
	A	B	C	D	E	F
Cut Resistance (Newton)	>2	>5	>10	>15	>22	>30
Suggested Application						

## EN 388



3 X 4 3 EP

If the glove passes impact protection standard  
→ Possible to claim impact protection in adding "P" on marking

NEW! Impact Protection  
NEW! (TDM Test) Cut  
(N) Puncture  
(N) Tear  
(C) Coupe Test) Cut  
(Cycle) Abrasion

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