

## TECHNICAL DATA SHEET

Name and address of manufacturer	PROTAN TURKEY YALITIM SAN. VE TİC. A.Ş. : G.O.S.B. İhsandede Caddesi No:111/1 Gebze/KOCAELİ / TÜRKİYE
Product trade name	: PROTAN GGV
Description	: UV Resistant, PVC Roofing Membrane with synthetic fibre and woven reinforcement
European Standart	: EN 13956
Type of application	: Exposed application (mechanical fastened)

CHARACTERISTICS	EXPRESSION OF RESULTS	TEST RESULT 1,50 mm	TEST RESULT 1,80 mm	UNIT	TEST METHODS
VISIBLE DEFECTS	Pass	Pass	Pass	-	EN 1850-2
LENGTH	MDV	20 (-%0 + %5) 500 (-%0 + %5)	20 (-%0 + %5) 500 (-%0 + %5)	m	EN 1848-2
WIDTH	MDV	1,060 (-%0.5, +%1) 1,080 (-%0.5, +%1) 1,100 (-%0.5, +%1)	1,060 (-%0.5, +%1) 1,080 (-%0.5, +%1) 1,100 (-%0.5, +%1)	mm	EN 1848-2
STRAIGHTNESS	≤ 50	≤ 50	≤ 50	mm	EN 1848-2
FLATNESS	≤ 10	≤ 10	≤ 10	mm	EN 1848-2
EFFECTIVE THICKNESS	MDV	1,50 ± %5	1,80 ± %5	mm	EN 1849-2
WATER TIGHTNESS	Pass	Pass	Pass	-	EN 1928 (Method B)
EXTERNAL FIRE PERFORMANCE	Broof (t2)	Broof (t2)	Broof (t2)	-	ENV 1187 EN 13501-5
REACTION TO FIRE	CLASS E	CLASS E	CLASS E	-	CLASSIFICATION AFTER EN 13501-1
JOINT PEEL RESISTANCE	≥ 200	≥ 200	≥ 250	N/50mm	EN 12316-2
JOINT SHEAR RESISTANCE	Rupture out of joint location	Rupture out of joint location	Rupture out of joint location	-	EN 12317-2
TENSILE STRENGTH	L ≥ 800	L ≥ 1000	L ≥ 1000	N/50mm	EN 12311-2 (Method A)
	T ≥ 800	T ≥ 900	T ≥ 900		
ELONGATION AT BREAK	L ≥ 15	L ≥ 20	L ≥ 20	%	EN 12311-2 (Method A)
	T ≥ 15	T ≥ 20	T ≥ 20		
RESISTANCE TO IMPACT	≥ 400	≥ 800	≥ 800	mm	EN 12691 (Method A)

## TECHNICAL DATA SHEET

Name and address of manufacturer	PROTAN TURKEY YALITIM SAN. VE TİC. A.Ş. : G.O.S.B. İhsandede Caddesi No:111/1 Gebze/KOCAELİ / TÜRKİYE
Product trade name	: PROTAN GGV
Description	: UV Resistant, PVC Roofing Membrane with synthetic fibre and woven reinforcement
European Standart	: EN 13956
Type of application	: Exposed application (mechanical fastened)

CHARACTERISTICS	EXPRESSION OF RESULTS	TEST RESULT 1,50 mm	TEST RESULT 1,80 mm	UNIT	TEST METHODS
RESISTANCE TO STATIC LOAD	$\geq 20$	$\geq 20$	$\geq 20$	kg	EN 12730
TEAR RESISTANCE	L $\geq 180$	L $\geq 200$	L $\geq 200$	N	EN 12310-2
	T $\geq 180$	T $\geq 200$	T $\geq 200$		

## TECHNICAL DATA SHEET

Name and address of manufacturer	PROTAN TURKEY YALITIM SAN. VE TİC. A.Ş. : G.O.S.B. İhsandede Caddesi No:111/1 Gebze/KOCAELİ / TÜRKİYE
Product trade name	: PROTAN GGV
Description	: UV Resistant, PVC Roofing Membrane with synthetic fibre and woven reinforcement
European Standart	: EN 13956
Type of application	: Exposed application (mechanical fastened)

CHARACTERISTICS	EXPRESSION OF RESULTS	TEST RESULT 1,50 mm	TEST RESULT 1,80 mm	UNIT	TEST METHODS
DIMENSIONAL STABILITY	≤ 1,0	≤ 1,0	≤ 1,0	%	EN 1107-2
FOLDABILITY AT LOW TEMPERATURE	≤ -20	≤ -20	≤ -20	°C	EN 495-5
UV EXPOSURE (1000 h)	Pass	Pass	Pass	-	EN 1297
EFFECTS OF LIQUID CHEMICALS, INCLUDING WATER (28 DAYS / 23° C)	See Annex C	On request	On request	-	EN 1847
HAIL RESISTANCE	MLV	≥ 17	≥ 17	m/s	EN 13583
WATER VAPOUR TRANSMISSION PROPERTIES	MDV	18.000 ± %30	18.000 ± %30	μ	EN 1931
RESISTANCE TO ROOT PENETRATION	MDV	Resistant	Resistant	-	EN 13948

MDV = Manufacturer's Declared Value

MLV = Manufacturer's Limiting Value

L = Machine Direction

T = Cross Direction

This technical data sheet was prepared according to the latest technical knowledge and standards of Protan Turkey Yalıtım Sanayi ve Ticaret A.Ş./ Gebze, KOCAELİ TURKEY. Technical changes due to further developments are possible.