






LAND DEFENSE

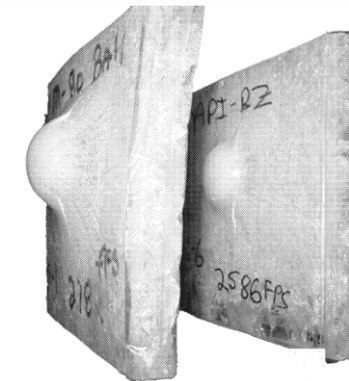


TRANSPARENT ARMORED SOLUTIONS FOR MILITARY LAND VEHICLES

OUR SOLUTIONS – CERTIFIED BALLISTIC COMPOSITIONS

	Product	T°	FSP
STANAG 1 	Standard with Anti-Spall	-32°C +55°C	520 m/s
STANAG 2 	Standard with A-S SGS PROTECT ^{®1} SGS PROTECT ^{®2} +	-32°C +55°C	630 m/s
STANAG 3 	Standard with A-S SGS PROTECT [®] SGS PROTECT [®] +	-32°C +55°C	770 m/s

STANDARDS	LEVELS
STANAG 4569	1,2,3,4
VPAM APR 2006	6, 7, 9, 10, 13
EN 1063	BR3, BR4, BR5, BR6, BR7
NIJ 0108.01	IIA, II, IIIA, III, IV



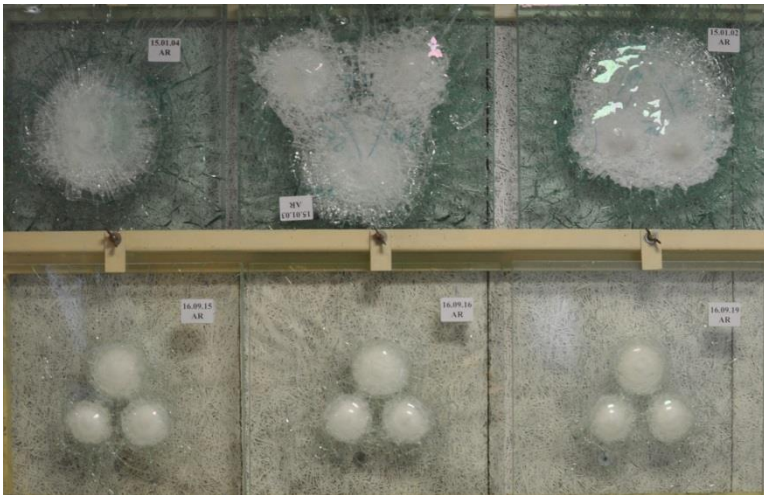
FAENAC[®] Technology

Saint-Gobain Sully has various mixes of composition to answer up to Stanag level 3

MOBILITY - AEROSPACE



OUR SOLUTIONS – CUSTOMIZED BALLISTIC COMPOSITIONS



- In partnership with its customer, Saint-Gobain Sully is **designing optimized composition dedicated to specific needs** (specific temperature, weapon, ammunition,...)
- With its **in house ballistic laboratory**, Saint-Gobain Sully tests each year **hundreds of new compositions**. We manage test at high temperature (until +75°C) and at low temperature (until -32°C)
- **Our composition benefits from the Saint-Gobain knowledge** in transparent materials, and know-how in process for material combination, reinforcement of glass (chemical treatment).
→ All together it enables us to propose you the best solutions
- Our target is to **propose the best compromise** between protection level, weight, price and reliability
- With our production footprint, we are able to propose competitive price



TNO innovation
for life

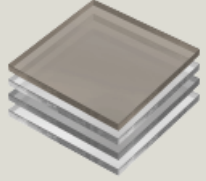
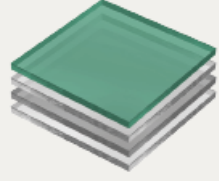
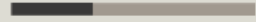
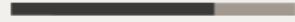
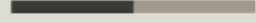
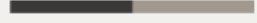


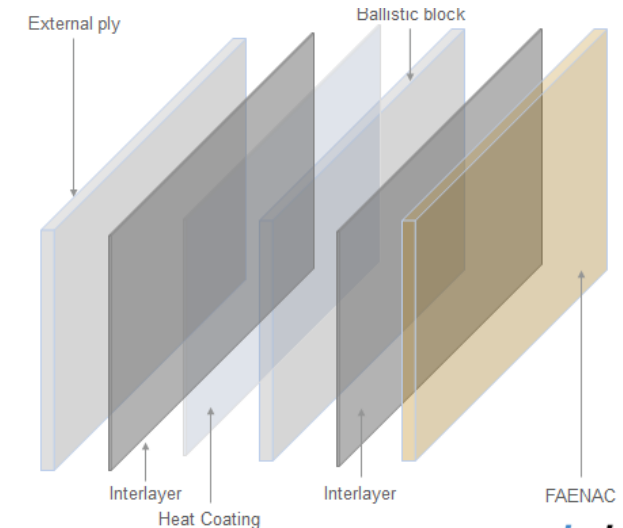
CONFIDENTIAL

MOBILITY - AEROSPACE


SAINT-GOBAIN

OUR SOLUTIONS – DURABILITY AND RELIABILITY

POLYCARBONATE	FAENAC®
	
Resistance to chemical agents	
	
Scratch resistance	
	
Warranty time against delamination	
2-3 years	4-5 years



Our outstanding technology of Spallshield FAENAC® is generally chosen by our military customers. It is the only Non-PC solution on the market with **26 years of return of experience**

OUR SOLUTIONS – DURABILITY AND RELIABILITY

TRUE EXPECTED LIFETIME OF 20 YEARS WITHOUT



RAW MATERIALS

- **Good quality materials** stable against UV and temperature
- **Compatible materials** (contact between several organic materials have to be checked)
- **Each new material** (interlayer or substrate) and interface **is tested**
 - We measure the adhesion before and after ageing
 - We evaluate the aspect before and after ageing
 - KWT (Klimawechseltest or variable climate test)
 - Damp heat test
 - Damp heat and UV (QUV)

KNOW HOW

- **Instructions for the preparation** of the surfaces (cleaning, adhesion promoters)
- **Instructions for the de-airing and curing**
- **Advanced Edge Protection of the laminate (PPN)**

MOBILITY - AEROSPACE



CONFIDENTIAL

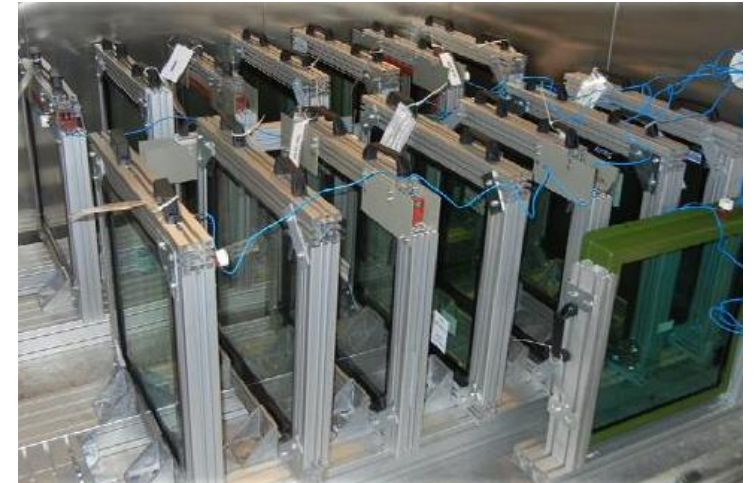
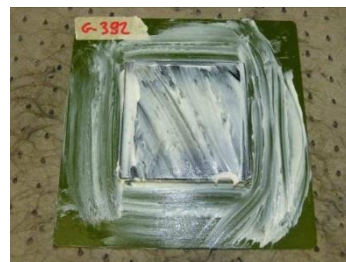
OUR SOLUTIONS – DURABILITY AND RELIABILITY

Most of our solutions are tested according to :

FEATURES	STANDARDS
VIBRATION	MIL-STD-167-1A
SHOCK	MIL-STD- 901D.5
ENVIRONMENTAL	CEI 60068-2-52 STANAG 4370 TL2350-006 MIL-STD-810G DEF-STAN-0035

CONTAMINANTS

Oils, grease, combustibles, cleaning products, coolant, washer fluid, fire-extinguishing agent and decontamination agent



Our solutions had been tested by different end customers and are **always defined as one of the most reliable solution**

MOBILITY - AEROSPACE



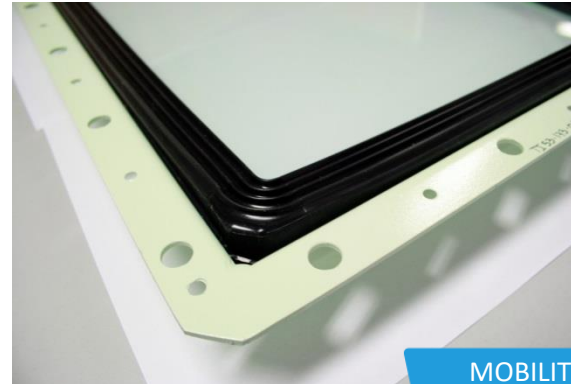
CONFIDENTIAL

OUR SOLUTIONS – COMPLETE SOLUTIONS DELIVERED

Most of Saint Gobain products are delivered as complete solutions

Our framing technologies

- **STANDARD** Glueing the glass in the frame directly
- **INJECTION** Injection of a peripheral rubber in a custom made mould around the glass before framing
- **STANDARD
EDGE SEAL** Edge seal with a specific thickness to fit specific glass put around the glass before framing (JASC)
- **ADJUSTABLE
EDGE SEAL** Special adjustable edge seal put around the glass before framing (Ad'JUST)



MOBILITY - AEROSPACE

OUR REFERENCES



SUPPLIER OF :



nexTER

PANHARD



Soframe

KMW
KRAUSS-MAFFEI WEGMANN



K+N
D+S

IVECO
DEFENCE VEHICLES



THALES

CONFIDENTIAL



MOBILITY - AEROSPACE

SAINT-GOBAIN

SUM UP

4 years of
warranty

20 years of true
durability

Lighter
composition

High Service
Rate

Current client
based worldwide



THANK YOU

Visit our Website:

www.saint-gobain-sekurit-transport.com

Nathalie Chesneau

Key Account Manager Business Manager

+33 6 80 18 22 09

Nathalie.chesneau@saint-gobain.com

Pierre-Yves ZINI

Business Manager

+33 6 08 10 45 73

Pierre-yves.zini@saint-gobain.com

