

Date: 14/12/04  
Ref: N-Woven-131204

## ***NONWOVEN CONVERTING Concise Report***

### **REPORT DETAILS**

<b>Insured:</b>	Nonwoven converting in Germany
<b>Survey on:</b>	Underwriting Information

### **INSURED BUSINESS DETAILS**

<b>Insured:</b>	Nonwoven	
<b>Address:</b>	Any	
<b>Business:</b>	Non-woven industry, moist hygiene products (toilet paper, baby wipes, cosmetic wipes household wipes.	
<b>Operation Hours:</b>	24 hours, 7 days (less one shift) – plan.	
<b>Employees:</b>	135; 30 management, 105 operating 4 lines, 4 shifts (plan for 2004).	
<b>Maintenance:</b>	4, 5	
<b>Contractors:</b>	Only technical services and safety related.	
<b>Production Sub-Contractors:</b>	Plastic packaging containers,	
<b>Raw Materials:</b>	Non-woven rolls, Chemicals, Products plastic boxes, other packaging materials.	
<b>Property in Sub-con premises</b>	Molds, 12 units about EU 1MM.	
<b>Turnover:</b>	\$ 34,000,000 toward \$ 50,000,000.	
<b>Security:</b>	None specific.	
<b>Fire S.I.</b>	Buildings:	EU 4,000,000
	Equipment:	EU 9,000,000
	Office:	EU 200,000
	Inventories:	EU 7,000,000
	LOP:	EU 18,000,000

## SUMMARY

<b>Layout</b>	2 Main Building, External Safety Containers and Yard Storage within a fenced area
<b>Buildings:</b>	Production – 3,780 m <sup>2</sup> (2000, 2003) and Storage 1,875 m <sup>2</sup> (2000).
<b>Prospective Construction:</b>	For 2005: 1,500 m <sup>2</sup> , 12 to 16 m high, rack storage up to 12 m high, PUR panels envelope, on exposed steel frame, 8 m east of the existing storage building.
<b>Construction:</b>	Generally, PUR panels. Will participate in fire.
<b>Fire Walls:</b>	90F fire walls around the Boiler room, the compressor room and flammable liquids dispensing room. Between the production and the offices section. The northern wall facing the northern yard.
<b>Products:</b>	Hygiene moist non-woven towels of various kinds
<b>Solid Materials:</b>	Viscose and Polypropylene non-woven in Rolls, plastic containers for the products, plastic packaging material and cartons.
<b>Liquids/Fluids:</b>	Flammable, Combustible and other water based chemicals. The flammable storage is stored in outside safety containers. The internal dispensing room is fitted with the required safety arrangements, except for fire protection and curbing to prevent flooding of the surrounding chemical halls with potentially burning pool. Other materials that are not defined as "Flammable 3" are combustible
<b>Fire Risks in Production:</b>	Heavy fire load due to the presence of significant amount of non-woven roll storage and some combustible chemicals.
<b>Fire Risks in Storage:</b>	Heavy fire load in the form of non-woven rolls stored on end up to 7 m. high, rack storage of packaging materials and large light paraffin tank. The later is protected by half height concrete walls.
<b>Exposure to production lines:</b>	The Production may be exposed to the Storage building despite the distance of 12 m between them. This is due to the fire load in the storage building and the combustible construction. The new storage building would severely expose the existing one that in turns exposes the production building. However, in the production building itself there is sufficient fire load to expose the production lines.
<b>Charging of Lift Trucks</b>	Done in the storage building too close to combustibles.

**SUMMARY, Cont-ed,**

- Fire Protection:** 6 kg dry powder ABC extinguishers located near every exit.  
Smoke detection system thought with dialer to the local fire department.  
Smoke releasing hatches, 3% of area, operated by heat or manually by the firemen.  
There is no water based fire protection, automatic or manual. Water is available outside the plant only for the fire department.  
One exception: 4 sprinklers are located over the paraffin tank within the storage building. Operation is manual. They are not significant.
- Explosion:** The boiler room contains a 290 KW hot water boiler fired by natural gas. There is no gas detection and automatic tripping of all systems. No pressure release. Thus, explosion is possible.
- Fire Department:** It is said that the first engine is expected within 5 minutes. We are waiting to get full deployment time schedule. Source of water for the fire engine up-to 180 m<sup>3</sup>/h.
- Natural Hazards:** Not surveyed.
- Environmental:** There are safety arrangements to prevent spillage of chemicals and penetration to the surrounding ground, The floor are sloped inward! This is effective for normal spillage, absolutely not for the massive spillage caused by fire!  
The Insurance coverage is for accidental or continual exposure for up-to EU 1,000,000.  
Please note that in case of fire, overflowing to the surrounding is inevitable. So, it is necessary to add to the exposure the amount insured in full.
- Safety Arrangement:** Safety inspection of the risk and equipment is done periodically as required by the regulations. Thermal inspection of electrical system will start next year.
- Training** Fire Drills are taken place annually. All the employees participate. However, fire drills do not use the type of materials used in the plant.
- FIRE PML:** 90% of total Sum Insured. Add EU 1,000,000 for probable environment claim.

**Enclosed:** Photos with Explanations

Yours faithfully,

*Dan Arbel*

**DAN ARBEL RISK ENGINEERING Ltd.**



**2 floors office section of the production building.**



**Typical Storage in the Storage building.**

**Very high fire Hazard.**

**If not detected and tackled within 1 minute, total destruction is expected.**



**The Production building is on the right and the storage building on the left.**

**There are combustible materials in the yard that may help spread of fire from one building to the other.**

**The PUR panels envelope will cause total destruction of the buildings on site**



**Two Extinguishers near an exit at the storage building. This is a typical arrangement near any exit.**



**The only location where 2x50Kg ABC are installed is near the main entrance of the Storage building.**

**Firefighting means are totally inadequate**



**A Typical Smoke  
release hatch.**

**It may cause  
burning  
enhancement.**



**This is the  
Paraffin tank  
within the  
storage  
building.**

**It is protected  
by concrete  
walls to prevent  
flooding.**

**The upper part  
is exposed to  
combustible  
materials,**



**Next to the production lines in a new (2003) production section.**

**The fire load is huge. If ignited a total destruction is expected**



**This is one of two production lines in the new section of the production building.**

**Please note on the left roll storage.**

**In the top photo, a fuller layout of extensive roll storage is displayed.**

**This is a severe exposure to the production building.**





**Flammable Liquids are stored in outside safety containers.**

**This is a good feature**



**The safety container has capacity to collect spillage.**



**This is a typical storage of chemicals within the building.**

**One 1000 liters alcohol is present.**

**Between the other chemicals there are combustible chemicals having flash point between 100C to 400C**

