

THE NONWOVENS BUSINESS IN THE MIDDLE EAST AND NORTH AFRICA

IDEA 2016

PRICE HANNA
CONSULTANTS

***Presentation by David Price
Price Hanna Consultants LLC***

INTRODUCTION

For purposes of this presentation, the Middle East and North Africa (MENA) region consists of the following major countries:

- The Gulf Cooperation Countries (GCC) which are Saudi Arabia, the United Arab Emirates (UAE), Qatar, Oman, Bahrain and Kuwait*
- The Rest of the Middle East: Israel, Iran, Jordan, Syria, Lebanon, Yemen and Iraq*
- North Africa: Egypt, Libya, Algeria and Morocco*

MENA OVERVIEW

There are five nonwoven technologies in the region but three account for 96% of all capacity.

- *Spunbonded/Spunmelt (SMS) Polypropylene (also called Spunlaid), Spunlaced and Carded Needlepunched*

Seventy-six percent of all nonwoven market demand is for hygiene and wipe end uses.

- *Much of the spunlaced nonwoven roll goods made in the region are exported to Europe and North America for conversion.*

MENA OVERVIEW

The potential for nonwoven demand growth is high in North Africa for hygiene and building products, low for hygiene and high for building products in the Middle East.

- *In the near term, Building Product and, in particular, Geotextile demand in the Middle East is depressed due to severe reductions in government spending.*

MENA OVERVIEW

There is some oversupply of SB/SMS PP for hygiene and severe oversupply in carded needlepunched capacity used for geotextile and roofing products.

- *From 2013 – 2015, SB/SMS PP nameplate capacity increased 120,500 tonnes or 85%.*
- *From 2012 through 2013, three new producers installed 28,800 tonnes of carded needlepunched capacity which increased capacity 89%. Market demand will decline in 2016 and remain flat in 2017.*
- *European imports of SB/SMS PP, mainly from Southern Europe, are highly competitive with supplies from the GCC.*

MENA OVERVIEW

Polypropylene costs in the Middle East are ~ 20% lower than Western Europe but the price gap has been much wider .

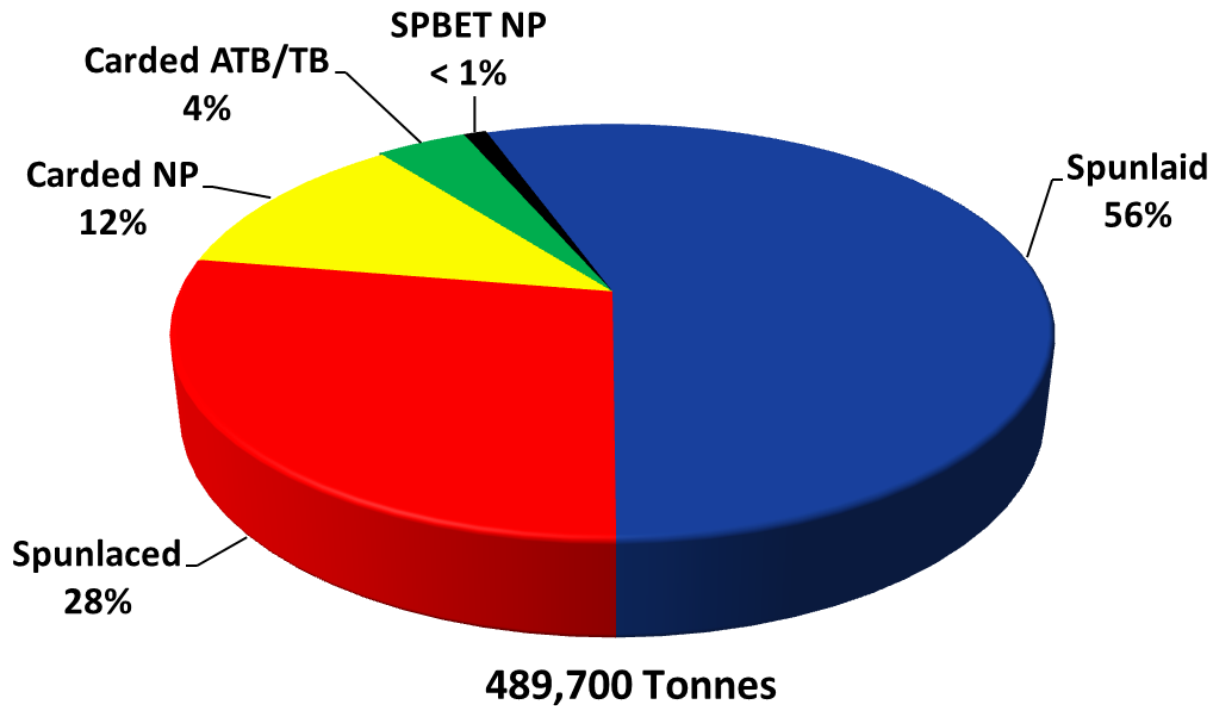
- *Middle East prices are well managed by PP producers and nonwoven producers have limited choices of supply.*
- *The Middle East exports PP to Europe, Southern Asia and Asia-Pacific. Export prices to Asian markets are lower than those to ME producers and reflect the competitive pricing conditions in those regions.*
- *Middle East PP prices are much lower than in North America, resulting in an increase in exports of staple fiber to NA.*

NONWOVEN TECHNOLOGIES IN MENA

There are 489,700 tonnes of nonwoven capacity in the region or about 4% of all global nonwoven capacity.

- *SB/SMS PP - 56% of all nonwoven capacity in the region.*
- *Spunlaced - 28%*
- *Carded needlepunched -12%*
- *Carded Air Through & Thermal Bonded - 4%*
- *Spunbonded PET Needlepunched - < 1%*

**MIDDLE EAST & NORTH AFRICA
NONWOVEN NAMEPLATE CAPACITY SHARE
BY TECHNOLOGY
2016
(Percent of Total Tonnes)**



Source: Price Hanna Consultants LLC estimates

MENA NONWOVEN CAPACITY BY COUNTRY

Saudi Arabia – 39% of all regional capacity

- *The largest amount of SB/SMS PP, Carded NP and SBPET capacity in the region*

Israel – 28% of all regional capacity

- *The largest amount of Spunlaced and Carded Through Air Bonded capacity in the region*
- *SB/SMS PP, Carded NP*

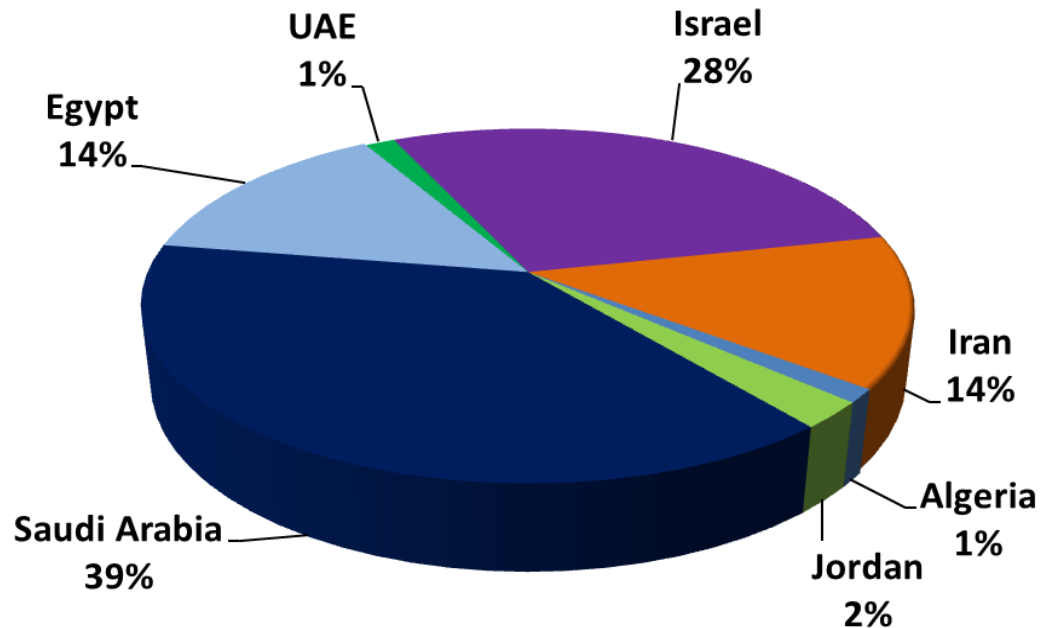
Egypt – 14% of all regional capacity

- *SB PET, SB/SMS PP, Spunlaced*

Iran – 14% of all regional capacity

- *Spunlaced, SB/SMS PP, Carded NP*

**MIDDLE EAST & NORTH AFRICA
NONWOVEN NAMEPLATE CAPACITY SHARE
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2016
(Percent of Total Tonnes)**



489,700 Tonnes

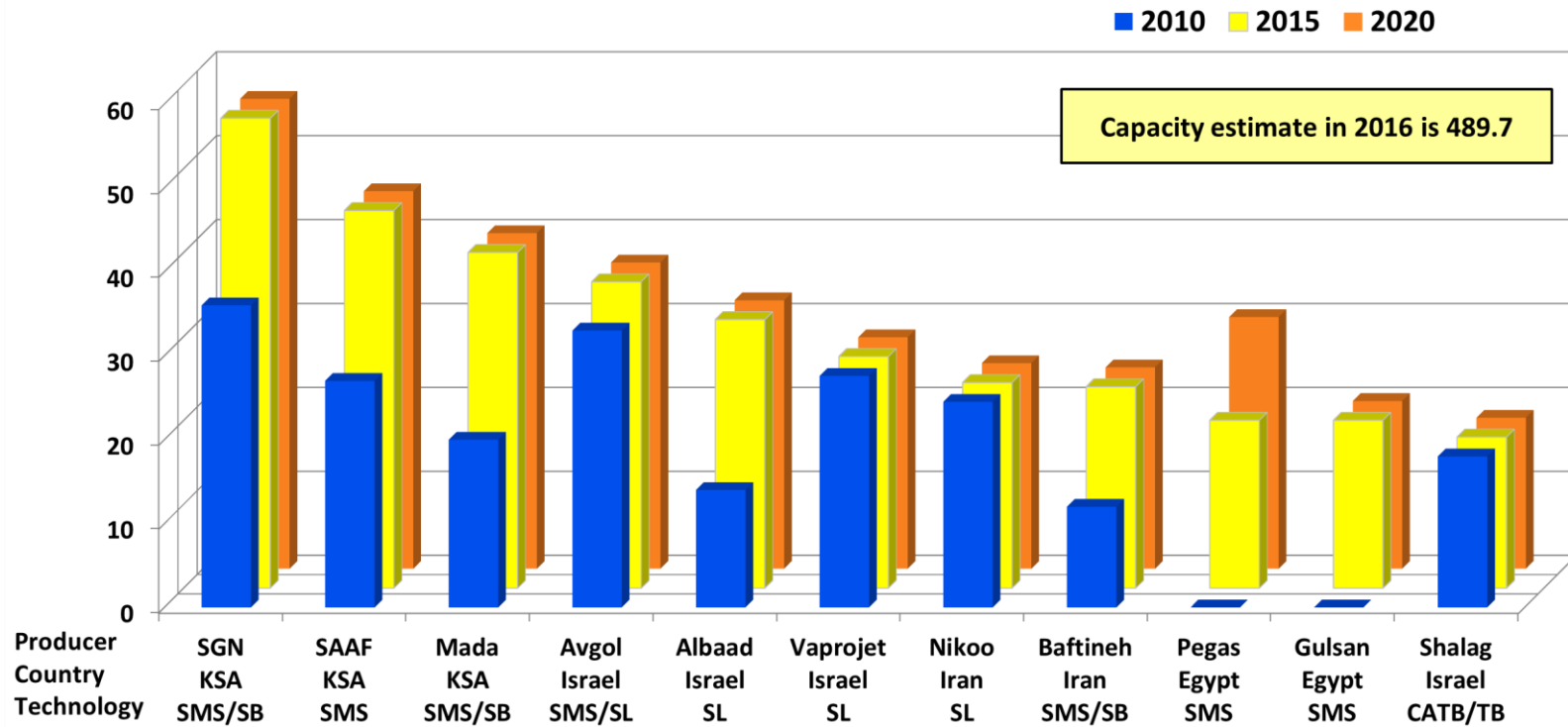
Source: Price Hanna Consultants LLC estimates

MENA NONWOVEN PRODUCERS/TECHNOLOGY

Twenty eight producers are in the region. Largest 10 have 65% of total regional capacity. Six of the top ten use spunlaid technology only.

- *SGN KSA – 11.4% of all regional capacity SB/SMS PP*
- *SAAF KSA – 9.1%, SMS PP*
- *MADA KSA – 8.1%, SMS PP, SB PET*
- *Avgol Israel – 7.5%, SB/SMS, Spunlaced SB*
- *Albaad Israel – 6.5%, Spunlaced Carded, Airlace, Wetlace*
- *Vaporjet Israel – 5.6%, Spunlaced Carded*
- *Baftineh Iran – 4.9%, SB/SMS PP*
- *Pegas Egypt – 4.0%, SMS PP*
- *Gulsan Egypt – 4.0% SMS PP*
- *Shalag Israel – 3.7% Carded Air Through Bonded*

MIDDLE EAST & NORTH AFRICA LARGEST REGIONAL NONWOVEN PRODUCER'S NAMEPLATE CAPACITY DEVELOPMENT 2010 - 2020 (Thousands of Tonnes)



Source: Price Hanna Consultants LLC estimates

NONWOVEN MARKETS IN MENA -2016

Hygiene – 46% of all demand

- *Largely supplied by SB/SMS PP (88%), Carded Thermal and Air Through Bonded nonwovens*

Wipes – 31% of all demand

- *Spunlaced carded, airlace, wetlace, tissue/dry laid*

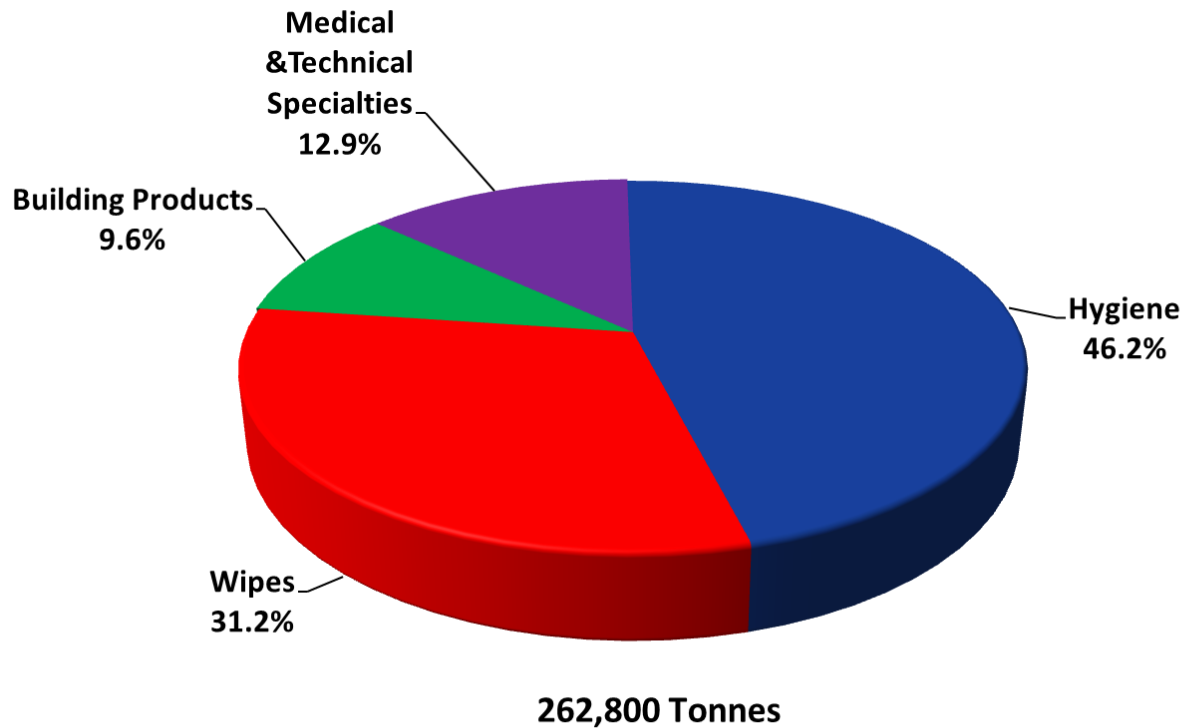
Building Products – 10% of all demand

- *Mostly Carded Needlepunched, SBPET*

Medical, Technical Specialties, Other – 19% of all demand

- *Mostly SB/SMS PP, small amount of Spunlaced, Carded NP*

MIDDLE EAST & NORTH AFRICA DEMAND SHARE BY MARKET 2016 (Percent of Total Tonnes)



Source: Price Hanna Consultants LLC estimates

MENA NONWOVEN SUPPLY/DEMAND - 2016

In 2016, we estimate total nonwoven demand will be about 262,800 tonnes and total regional output capacity will be 380,000 tonnes. We conclude that total regional capacity utilization will be on the order of 69% – 71%.

Capacity utilization will vary among nonwoven technologies and producers:

- *SB/SMS PP – 67% all markets, 74% in square meters for hygiene*
- *Spunlaced – 80-85%*
- *Carded Needlepunched – 53%*
- *Carded Thermal & Through Air Bonded – 82%*
- *SBPET – 56%*

MENA NONWOVEN SUPPLY/DEMAND OUTLOOK - 2019

In 2019, we estimate total nonwoven demand will grow 3.9% per year in tonnes to about 294,600 tonnes and total regional output capacity will be 387,000 tonnes. We conclude that total regional capacity utilization will be on the order of 76%.

Capacity utilization will vary among nonwoven technologies and producers:

- *SB/SMS – 75% all markets, 78% in square meters for hygiene*
- *Spunlaced – 85 - 87%*
- *Carded Needlepunched – 58%*
- *Carded Thermal & Through Air Bonded – 90%*

KEY DRIVERS OF SUPPLY/DEMAND 2016 - 2020

Macro

- *Social and political instability, terrorism, civil war and economic challenges from lower oil prices.*

Hygiene

- *High market penetration in the Middle East. Average annual demand growth of 1.4% in tonnes and 2.6% in square meters.*
- *Lower level of market penetration in North Africa. Average annual demand growth of 8.5% in tonnes and 9.9% in square meters.*
- *Lingering market oversupply. A small increase in North Africa SB/SMS capacity in 2017 is planned.*
- *European imports of SB/SMS PP to North Africa which compete with Middle East supply.*

KEY FACTORS ON SUPPLY/DEMAND 2016 - 2020

Building Products

- *Dramatically lower government funding for infrastructure*
- *Large oversupply*
- *Shortage of construction labor, mobilization and administrative delays to respond to sharp increase in government spending should it occur.*

REGIONAL ECONOMIC IMPACTS ON DEMAND

The sharp reduction in oil prices has had a major impact on MENA economies and on nonwoven demand in the Building Products market segment.

- *Demand for geotextiles and roofing end uses in the GCC is expected to decline 4.6% in 2016 due to reductions in government spending on infrastructure and could fall even further. Oil dependent countries in the GCC are dramatically reducing government spending in line with the sharp reduction in oil revenues.*
- *We do not expect a significant negative impact on hygiene, medical or technical specialties market demand.*

REGIONAL ECONOMIC IMPACTS ON DEMAND

In Saudi Arabia, the largest oil producing nation in the world and the largest economy in the MENA region, oil revenues fell from a peak in 2012 of 1.2 trillion SR to 608 billion SR in 2015.

- *The price of Brent Crude in 2012 averaged \$105/pbl and \$52.20/pbl in 2015. Oil prices are expected to average about \$43/pbl in 2016, \$54/pbl in 2017 and \$70/pbl in 2020.*
- *The KSA spent 975 billion SR in 2015 and incurred its second largest deficit ever of 367 billion SR.*
- *In its 2016 budget, the KSA expects revenues of 514 billion SR and has reduced its spending budget 15% over the prior year to 840 billion SR.*

REGIONAL ECONOMIC IMPACTS ON DEMAND

The KSA increased its spending on infrastructure from 39 billion SR in 2011 to 59 - 63 billion SR each year during 2012 – 2015. This increase in spending was the primary catalyst for three new carded needlepunched nonwoven producers to enter the market to supply expected geotextile demand. The KSA cut its infrastructure spending budget for 2016 by 42% to 24 billion SR.

- *Based upon economic forecasts, the GCC will experience a prolonged period of lower oil and non-oil revenues. We expect nonwoven demand in the Building Products market in the GCC to remain soft through 2020. Given this background, some producer consolidation may occur during the period.*

MENA NONWOVEN MARKET OPPORTUNITIES

There are no melt blown nonwoven lines in the MENA region and no known conversion of nonwovens for filtration end uses.

- *We believe all finished filtration products are imported into the region and that attractive demand exists.*
- *We think that there may be an opportunity to install nonwoven filtration media and conversion operations in the region to compete with imports.*

ABOUT PRICE HANNA CONSULTANTS

Price Hanna is a management consulting firm specializing in the global nonwoven and hygiene businesses.

- *The principals of Price Hanna have more than 35 years of combined consulting experience and a deep background in all key functional business areas derived from senior and executive management roles and consulting with leading nonwoven and woven fabric, fibers and related raw materials businesses worldwide.*
- *Our practice spans all levels of the value chain for disposable and durable nonwovens and materials in proprietary, non-conflicting projects.*

RELEVANT SUBSCRIPTION REPORTS

- *Spunbonded and Spunmelt Nonwoven Polypropylene World Capacities, Supply/Demand and Manufacturing Economics 2009, 2014 – 2019. **New report in June 2016***
- *Global Outlook for Hygiene Absorbent Products and Key Raw Materials in 2013, 2014 and 2019*
- *Outlook for Barrier Nonwovens and Film in Global Medical Markets 2014 – 2019*
- *Global Spunbonded Polyester Nonwoven Supply, Demand, Manufacturing Economics and Profitability 2008, 2013 and 2018*

CONTACT INFORMATION

- **Price Hanna Consultants LLC Headquarters**

603 Fairway Drive

West Chester, PA 19382

Tel: 610-793-1500

Website: www.pricehanna.com

- **David Price, Partner**

Tel: 404-502-6444

Fax: 770-901-9826

Email: dprice@pricehanna.com

- **Price Hanna, Managing Partner**

Tel: 610-793-1406

Fax: 610-793-1415

Email: phanna@pricehanna.com