للطاقة وطن
ENERGY HAS ITS HOME

وزارة الطاقة
MINISTRY OF ENERGY

Acrylates

Saturday, January 11, 2025

Integrated Acrylates complex (Acrylates, Acrylic Acid)

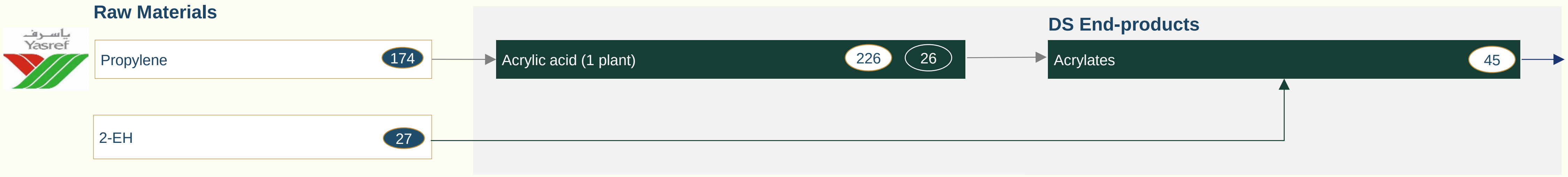
Project economics

Product	Non captive volume, KTA	Total volume, KTA
Acrylates	45	45
Acrylic Acid	226	252
Total volume	**271**	**297**

Location	Key Driver
Yanbu	Expected to be driven by consumer sector

Value chain

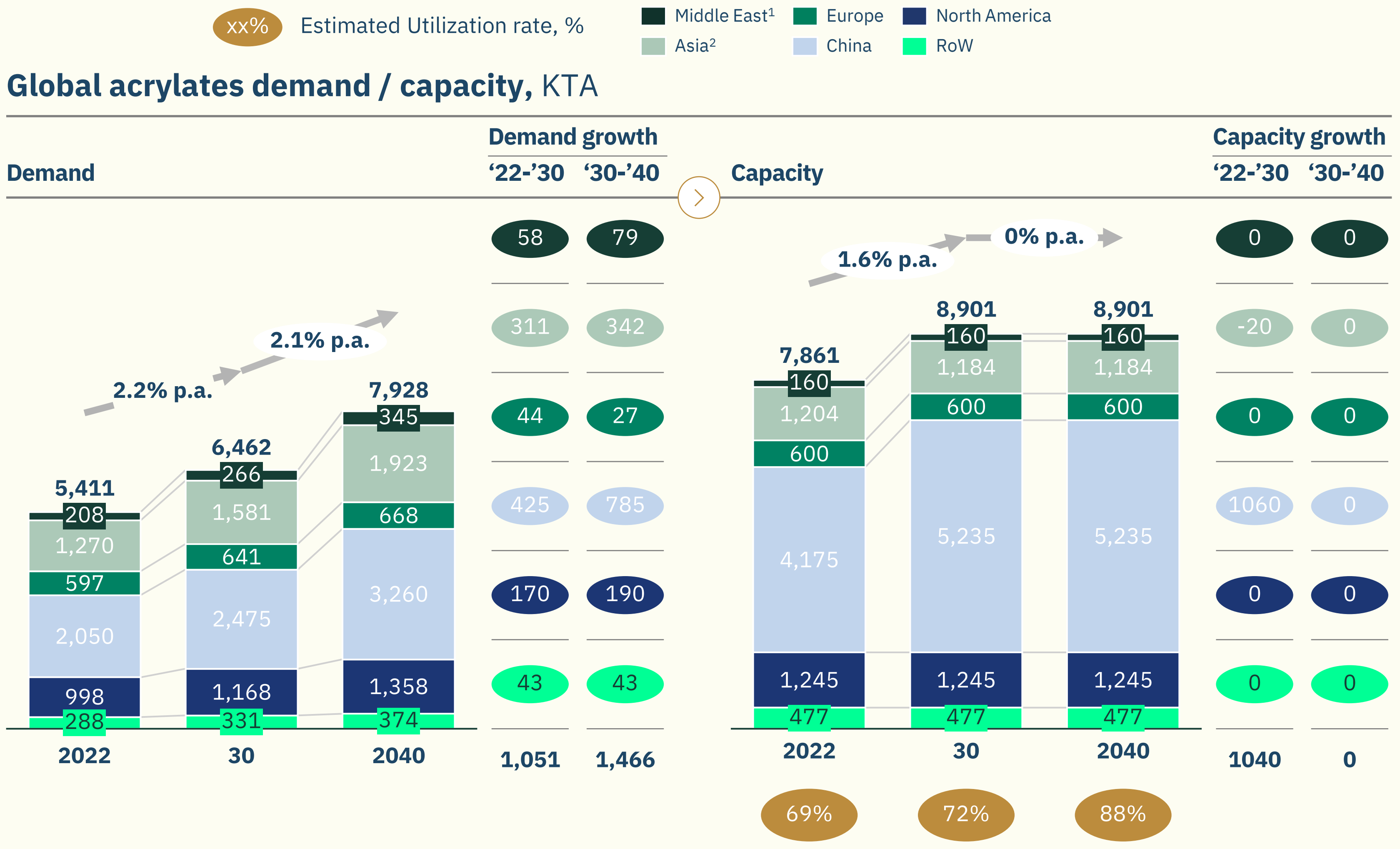
Integrated case | x Raw Materials | xxx end products | Sold to market | xx Captive capacity | xx Non-captive capacity



Exemplary players

Dow, HUAYI, Formosa Plastics, STL, LG International, TotalEnergies, BASF We create chemistry, ARKEMA

Global demand for acrylates is expected to grow faster than capacity in 2022 - 2040



Key takeaways

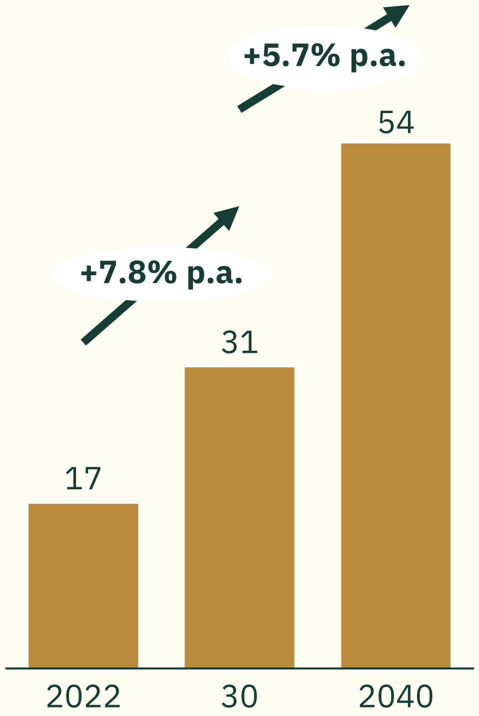
- Addressable demand[3] for acrylates by 2030 is ~**646 KTA**, coming from:
  - Middle East 58 KTA
  - Asia 331 KTA
  - Europe 44 KTA
  - North America 170 KTA
  - RoW 43 KTA
- **Demand gap of ~425 KTA in China** is expected to be addressed by local production
- Demand gap is estimated assuming the utilization rates will reach 72% and 88% by 2030 and 2040, respectively
- **Additional gap of ~1,466 KTA by 2040** expected considering projected growth

1. Includes Iran, Israel, Kuwait, Oman, Qatar, KSA, Syria, UAE, Turkey | 2. Excluding China | 3. Calculated as demand growth – capacity growth if demand growth > capacity growth, otherwise 0 (except for Middle East, where KSA growth can always be captured)

KSA demand growth for acrylates is expected to be driven by Construction sector

xx% Share of demand covered by the application[1], %

KSA acrylates demand projection, KTA



Demand drivers

	End market (application)	Demand outlook, KTA (2022 / 30 / 2040)	CAGR '22-'30,%	CAGR '30-'40,%
78%	Construction (surface coatings, adhesives and sealants)	13 / 26 / 47	9%	6%
11%	Textile (textile)	2 / 2 / 3	3%	3%
11%	Consumer (plastic additives and others[2])	2 / 2 / 3	3%	3%

Key takeaways

KSA represents <1% of global demand and expected to grow at **7.8% CAGR by 2030**

Afterwards the growth may slow down to 5.7% CAGR

Key drivers of growth in KSA are:

- **Construction** sector with a 9% CAGR between 2022-30
- **Textile** and **Consumer** sector with a 3% CAGR '22-'30

KSA demand is expected to grow faster than global (~7.8% KSA vs. 2.2% global CAGR '22-'30); however, **relatively smaller size of the local market makes acrylates an export-oriented investment case**

1. Global share | 2. Includes printing inks, paper coatings, acrylic fibers, polishes, leather, elastomers

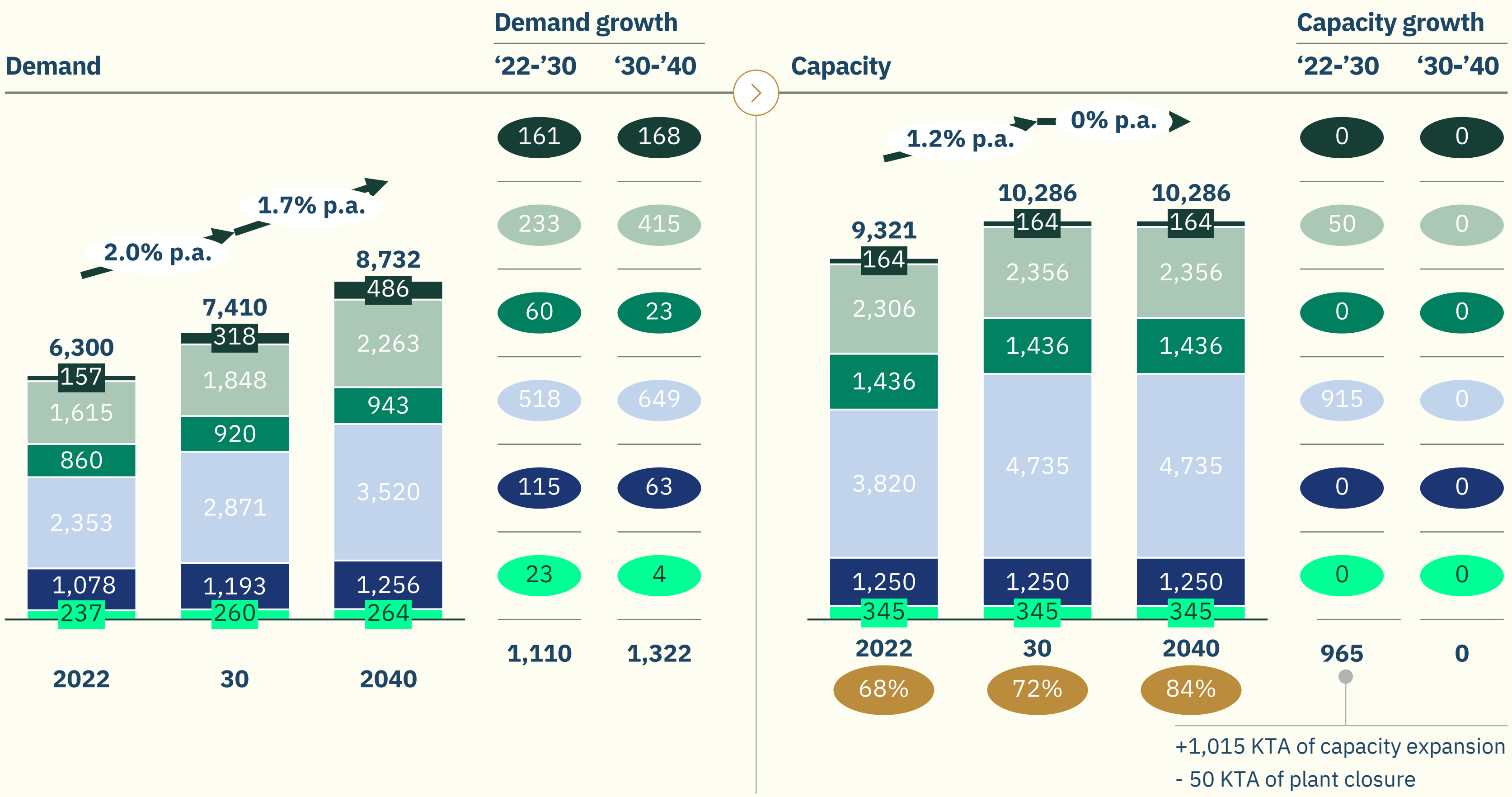
Source: Internal analysis

Global demand for acrylic acid is expected to grow faster than capacity in 2022 - 2040

xx% Estimated Utilization rate, %

Middle East[1] | Europe | North America | Asia[2] | China | RoW

Global acrylic acid demand / capacity, KTA



Key takeaways

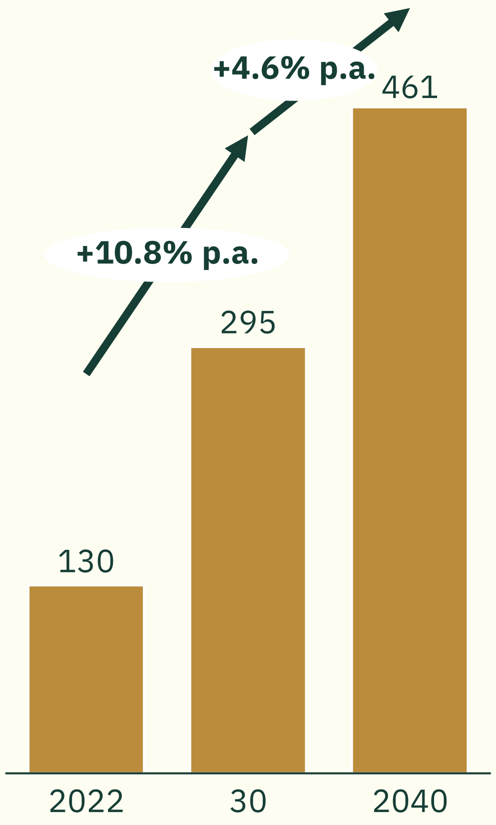
- Addressable demand[3] for acrylic acid by 2030 is ~**351 KTA**, coming from:
  - Middle East 160 KTA[4]
  - Asia 92 KTA
  - Europe 30 KTA
  - North America 58 KTA
  - RoW 12 KTA
- **Demand gap of ~518 KTA in China** is expected to be addressed by local production
- Demand gap is estimated assuming the utilization rates will reach 72% and 84% by 2030 and 2040, respectively
- **Additional gap of ~745[3] KTA by 2040** expected considering projected growth

1. Includes Iran, Israel, Kuwait, Oman, Qatar, KSA, Syria, UAE, Turkey | 2. Excluding China | 3. Calculated as demand growth – capacity growth if demand growth > capacity growth, otherwise 0 (except for Middle East, where KSA growth can always be captured). For export, 50% of acrylic acid demand can be addressed, corresponding to glacial grade only. Ester grade (used to produce acrylates) demand is normally captive due to difficulty in transporting this grade of acrylic acid | 4. 100% from KSA

KSA demand growth for acrylic acid is expected to be driven by captive acrylates consumption

xx% Share of demand covered by the application[1], %

KSA acrylic acid demand projection, KTA



Demand drivers

Share	End market (application)	Demand outlook, KTA (2022 / 30 / 2040)	CAGR '22-'30,%	CAGR '30-'40,%
70%	Construction, textile, consumer (acrylates manufacturing)	91 / 241 / 391	13% — Driven by 300 KTA unit target	5%
20%	Consumer (super absorbent polymers)	26 / 33 / 44	3%	3%
10%	Industrial Manufacturing (water treatment, detergents, paper treatment)	13 / 21 / 25	6%	2%

1. KSA share

Source: Internal analysis

Key takeaways

KSA represents 2% of global demand and expected to grow at **10.8% CAGR by 2030**

Afterwards the growth may slow down to 4.6% CAGR

Key drivers of growth in KSA is:

- **Acrylates manufacturing** with a 13% CAGR between 2022-30, driven by 300 KTA expansion in acrylates targeted

KSA demand is expected to grow faster than global (~10.8% KSA vs. 2.0% global CAGR '22-'30)

Size of the local market makes acrylic acid a local investment case with opportunity to export glacial grade

Thank You