

INCAL 2019
7th International Conference on Aluminium
Bhubaneswar, India

Aluminium downstream market trends
- a Global & Indian Perspective -

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February 1, 2019

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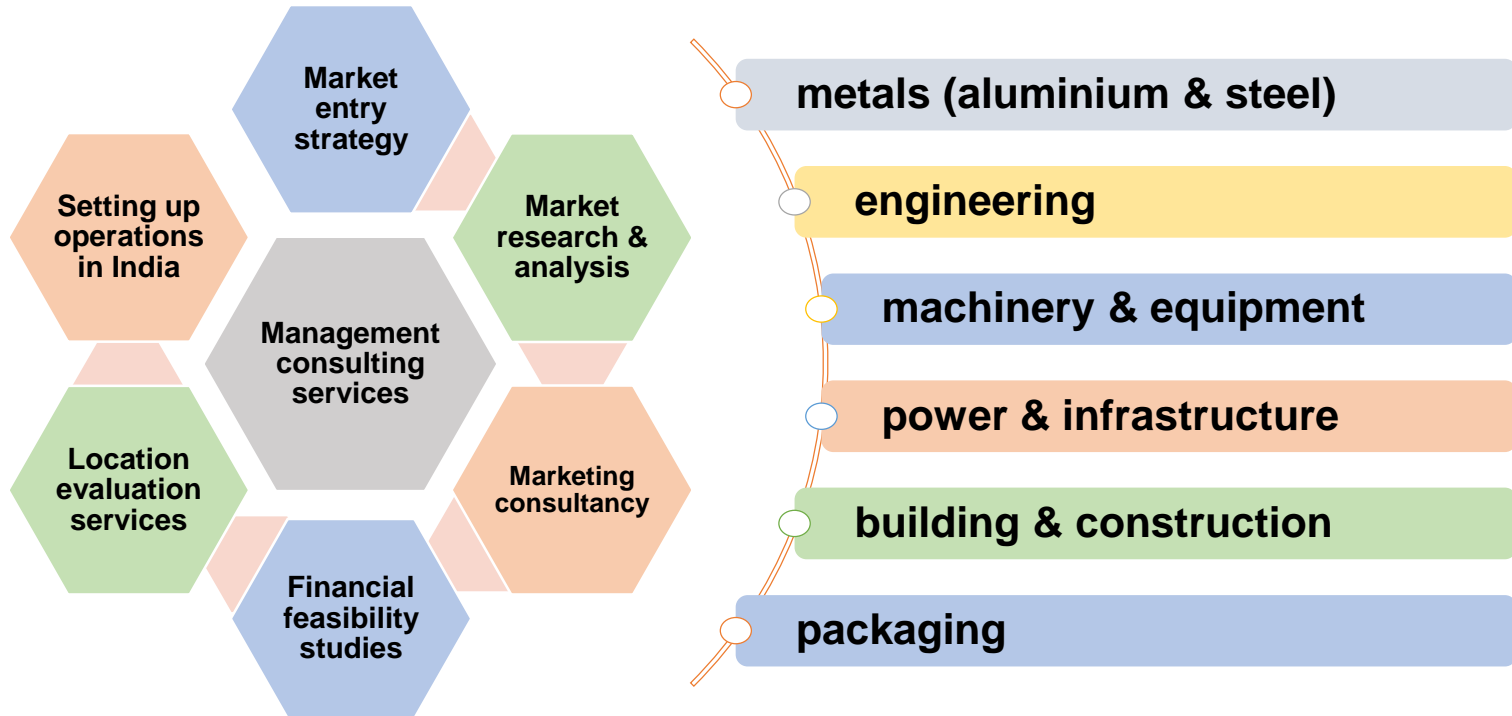
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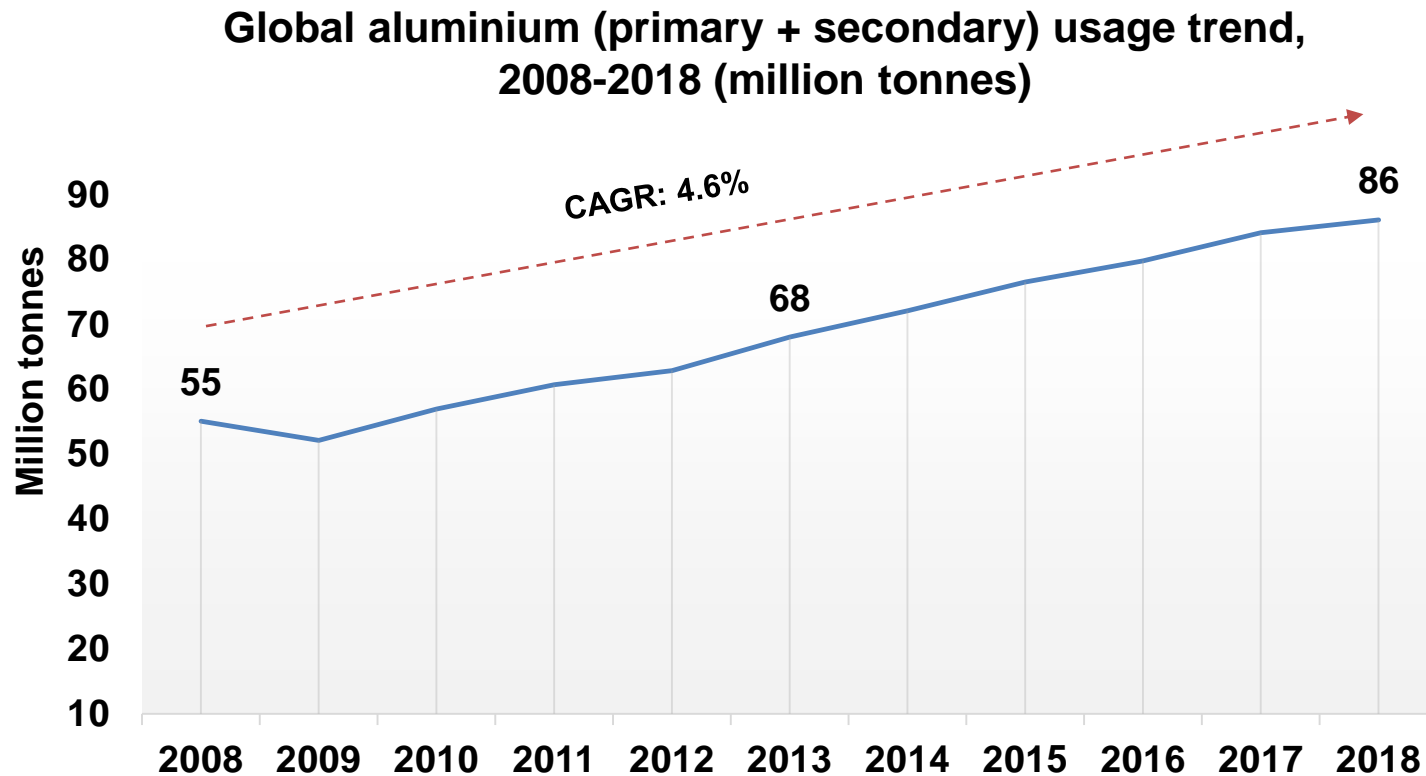
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Global aluminium usage increased from about 55 Mn tonnes in 2008 to 86 Mn tonnes in 2018...



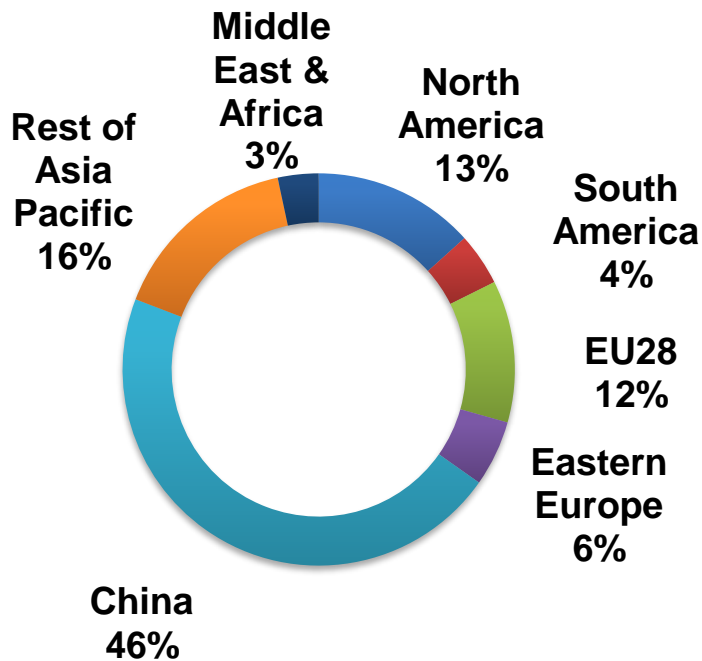
Source: International Aluminium Institute (IAI)

- **Global aluminium usage is forecast to grow at 4.4% per annum over the next seven years**

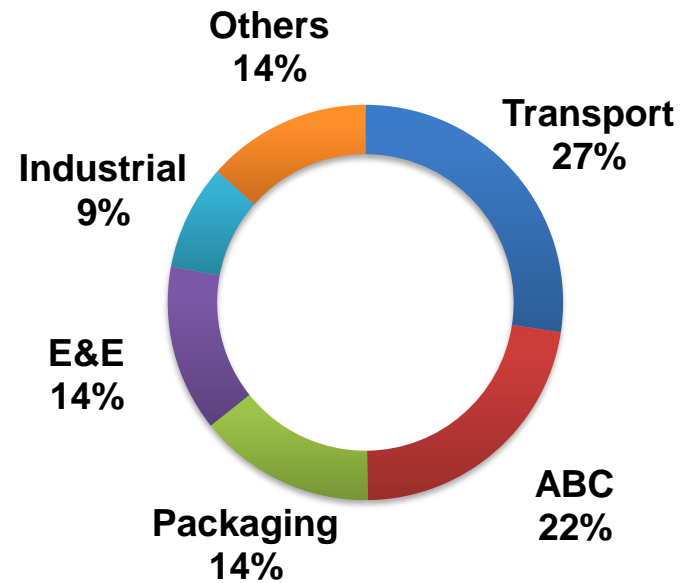
China accounted for about 46% of the global aluminium usage in 2018...

Global aluminium usage (primary & recycled), (2018) ~ 86 mn. tonnes

By region (%)



By end use (%)

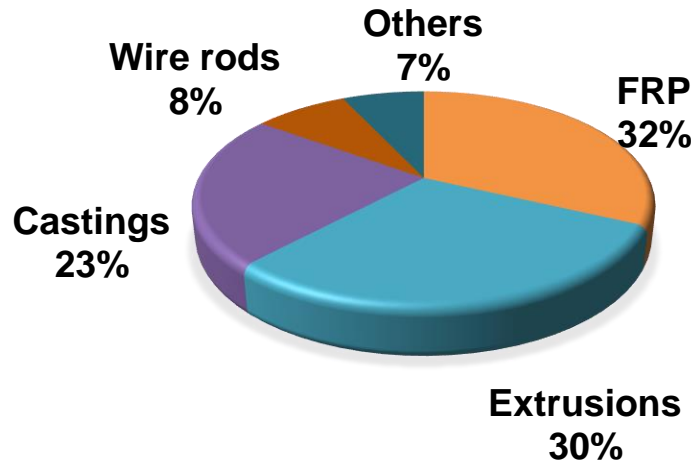


Source: MCG research estimate

Aluminium FRP and extrusions account for about 62% of the total aluminium usage...

Global aluminium usage by product type

Usage 2018: 86 mn. tonnes



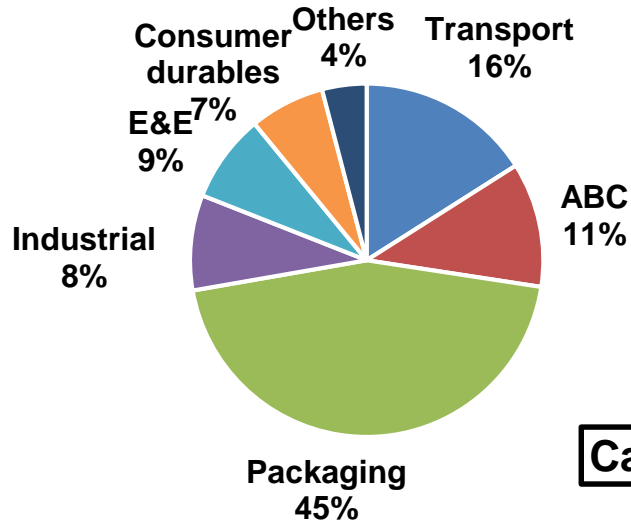
Note: FRP usage includes foilstock
Source: MCG research

Product group	CAGR (%) 2018-2025
FRP	4.9
Extrusions	5.2
Castings	3.6
Wire rods	3.3

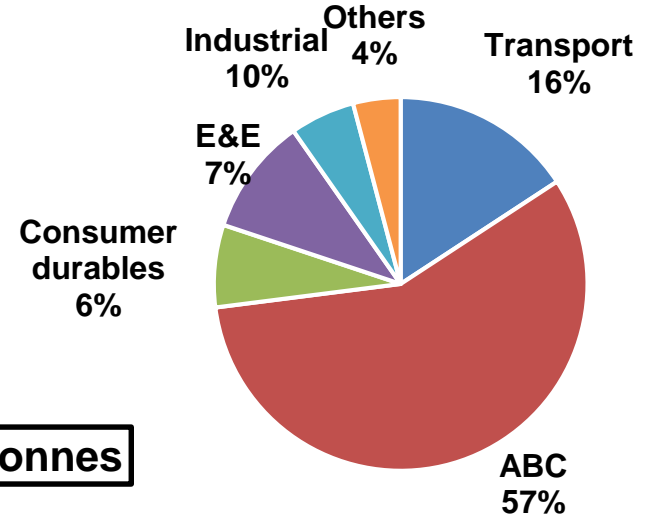
Source: MCG research

Pattern of usage varies widely across products & end user segments

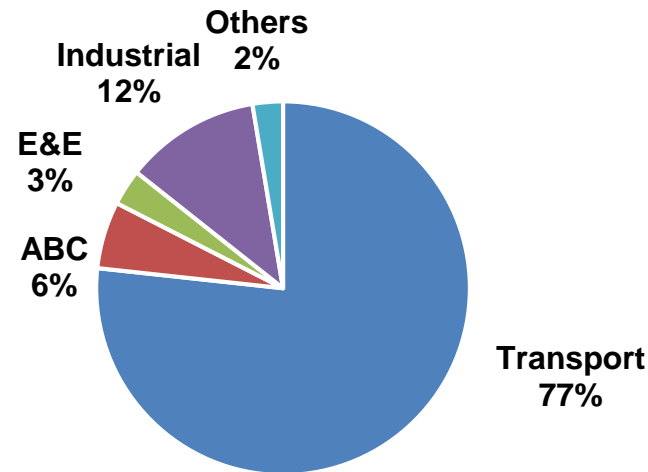
FRP ~ 28 mn tonnes



Extrusions ~ 26 mn tonnes



Castings ~ 20 mn tonnes



Source: MCG research

Key drivers in the coming decade

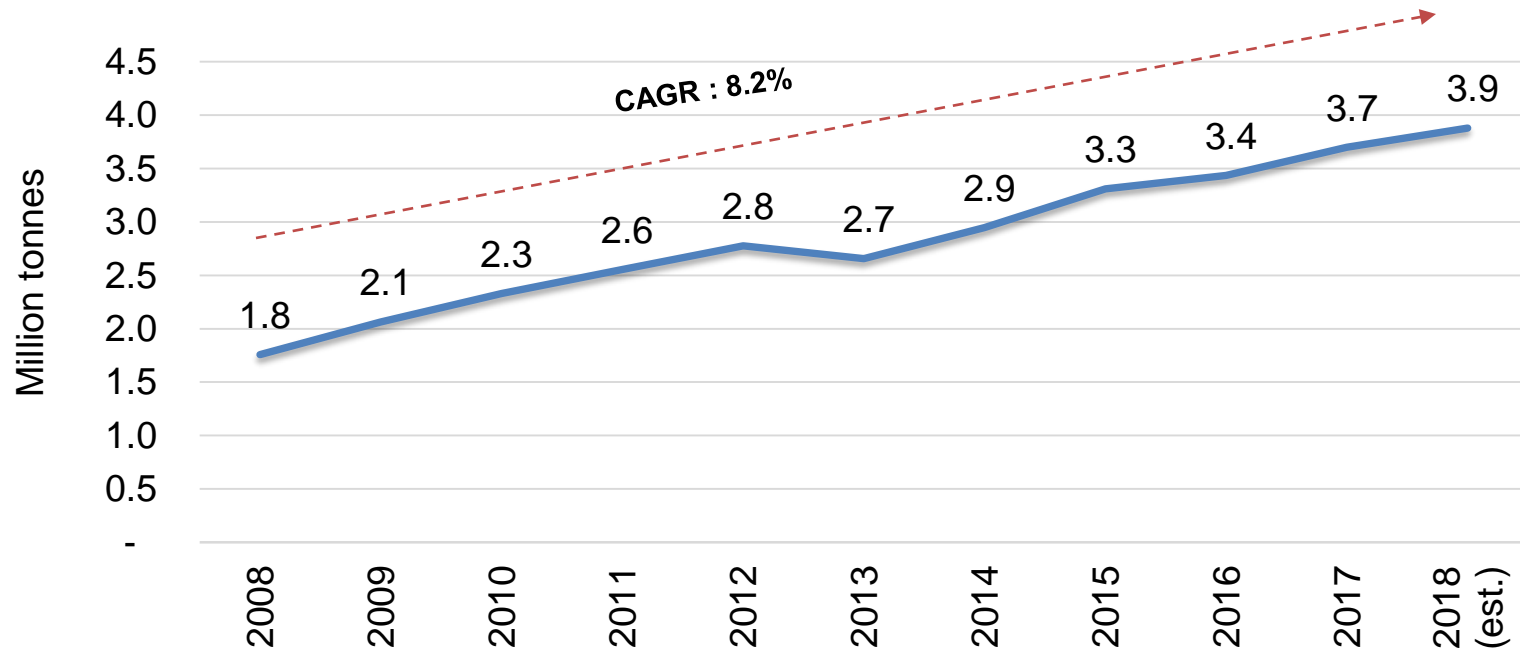
- **Transportation sector will continue be at the forefront**
 - **Light weighting concepts – climate change, global warming, growing environmental concerns and so on**
 - **Emergence of EVs & hybrids**
 - **Development of all-aluminium pickup trucks**
 - **Development of high speed, metro/ mono rail networks**
- **Stricter emission norms and green building initiatives by regional governments**
- **Large investments in solar energy; aluminium for devices, LED lighting**
- **Growing demand for environment friendly packaging formats for consumer products, electronic goods and more**
- **Recycling to the centre-stage**

**Aluminium downstream market trends
- The Indian Perspective -**

Aluminium usage in India (primary plus recycled) is estimated at 3.9 million tonnes in 2018...

- Aluminium demand is forecast to increase to more than 6 million tonnes by 2015 (CAGR : 7 to 8%)

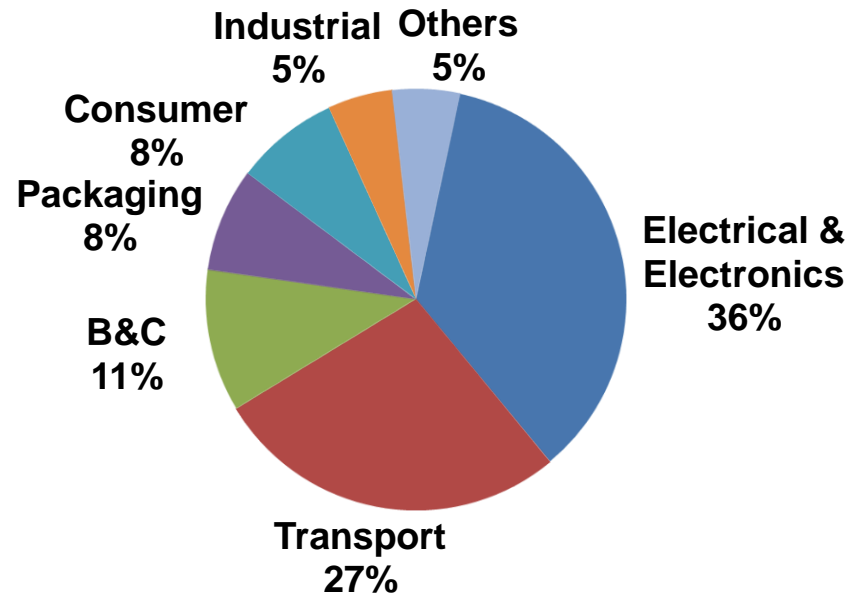
India: Aluminium demand, 2012 to 2018 (mn. tonnes)



Source: MCG research estimate

Electrical & electronics sector is the major end user segment in India accounting for 36% of the total usage...

Aluminium usage in India by end use sectors, 2018
Total usage ~ 3.9 mn tonnes



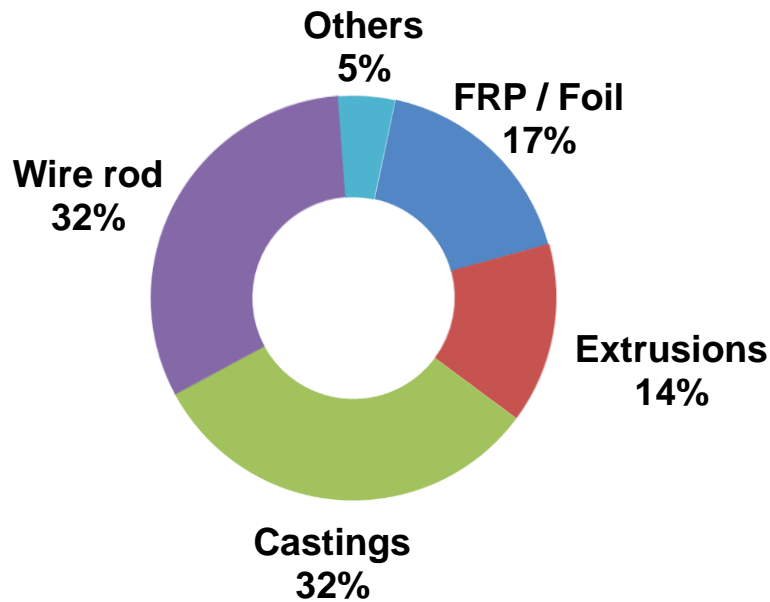
Source: MCG research

The transportation sector used more than 1 million tonnes of aluminium in 2018

Aluminium usage pattern is significantly different in India...

Aluminium usage in India by product type

Usage 2018 ~ 3.9 mn tonnes



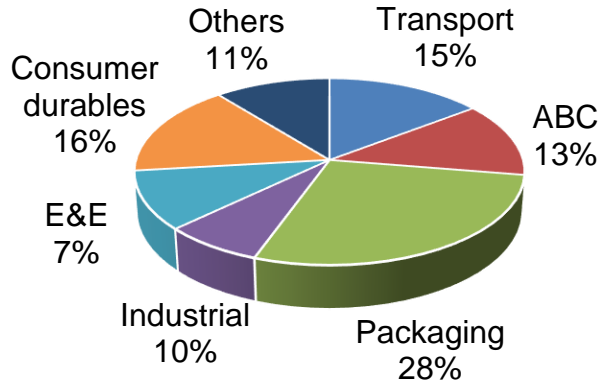
Source: MCG research estimate

Product group	CAGR (%) 2018-2025
FRP / foil	7.5
Extrusions	8.5
Castings	7.5
Wire rods	7.0

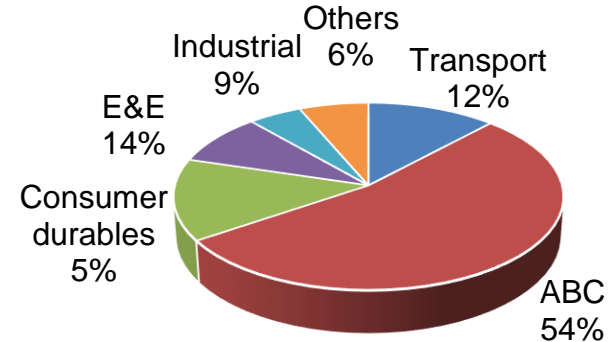
Source: MCG research

Aluminium downstream products usage by end user sectors in India (2018)...

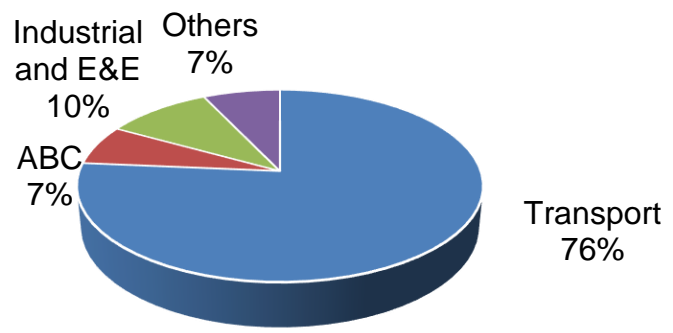
FRP ~ 670,000 tonnes



Extrusions ~ 560,000 tonnes



Castings ~ 1.2 million tonnes



Source: MCG research estimate

Key drivers going forward

- **Ever expanding transmission & distribution network**
- **Fast developing solar power market**
- **Growth in transportation sector**
 - increasing automobiles production
 - Government's push towards Electric vehicles
 - Development of highspeed and metro/mono rail networks
- **Recovery in the building and construction sector**
 - Support from Government – schemes and policies
 - Growing awareness on green building concepts
- **Demand for consumer durable products driven by burgeoning middle class with spend-power**
- **Rapid growth in demand for foil fuelled by legislative measures against single-use plastics packaging**

Thank you !

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