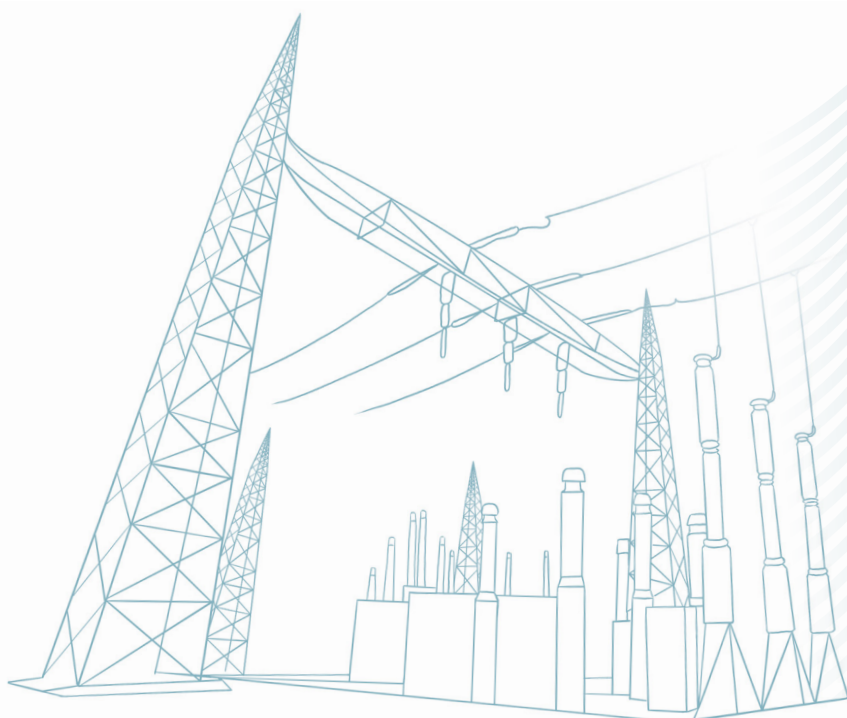




# ***DRY TRANSFORMERS***

***COVEME ELECTRICAL  
INSULATION MATERIALS***



**coveme**

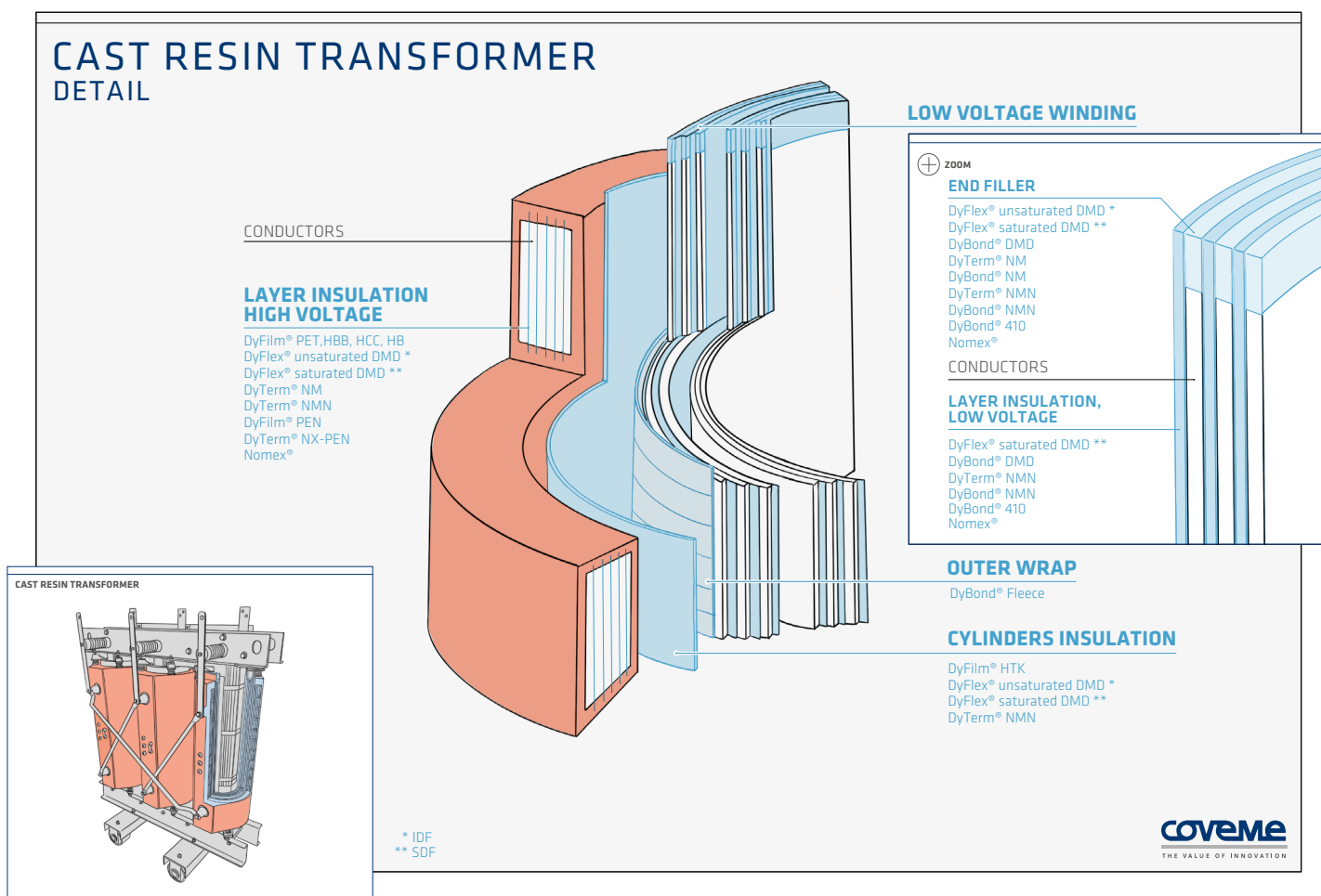
THE VALUE OF INNOVATION

Transformers are central elements in electrical systems, converting energy in a wide range from power grid to small appliances. Coveme's flexible insulation materials aid manufacturers of dry-type transformers in addressing a broad spectrum of needs, encompassing performance, longevity, manufacturing efficiency, and cost-effectiveness.

## CAST RESIN TRANSFORMERS

Cast resin transformers feature excellent reliability, improved safety, better resistance to environmental conditions while offering easier installation process and cost-effective operation. Today they are extensively used in industries, data centers, buildings, renewable energy plants, marine and transportation applications.

Coveme's product portfolio offers a range of flexible insulation materials specifically designed for the construction of low and medium voltage cast resin transformers. These materials cater to all sizes of transformers, from hundreds of kVA to tens of MVA, in the various thermal classes, with a focus for Class F 155°C and Class H 180°C.



## PRODUCT RANGE

- **DyFilm® range:** multilayer or monolayer PET films with different surface treatments
- **DyFlex® range:** non-woven fleece and polyester laminates, saturated and unsaturated
- **DyTerm® range:** Nomex® with polyester film laminates
- **DyBond® range:** pre-preg laminates with B-stage resin (full surface or diamond dot)

In Coveme's laminates, the individual layers are firmly bonded together using high performance adhesives. In preregs, the B-stage resin is specifically engineered to ensure an optimal curing process, leading to uniform and solid end results.

All the products have been designed to reach the highest dielectric, mechanical and thermic capability. They are compliant with IEC standards, certified by UL Underwriters Laboratories and approved by all major certification bodies worldwide. Coveme's experience in the field allows to provide tailored solutions to meet their specific needs.

# PRODUCTS APPLICATION CHART

TYPE OF INSULATION	THERMAL CLASS	COVEME PRODUCT RANGE			
<b>Layer insulation high voltage</b>	B 130°	DyFilm® PET, HBB, HCC, HB	DyFlex®, unsaturated DMD *		
	F 155°	DyFlex®, saturated DMD **	DyTerm® NM		
	H 180°	DyTerm® NMN	DyFilm® PEN		
	200°	DyTerm® NX-PEN			
	220°	Nomex®			
<b>Layer insulation, low voltage</b>	B 130°	DyFlex®, unsaturated DMD *			
	F 155°	DyFlex®, saturated DMD **	DyBond® DMD	DyTerm® NM	DyBond® NM
	H 180°	DyTerm® NMN	DyBond® NMN		
	H 180° (220°)	DyBond® Nomex			
	220°	Nomex®			
<b>Cylinder insulation ***</b>	B 130°	DyFilm® HTK	DyFlex®, unsaturated DMD *		
	F 155°	DyFlex®, saturated DMD **			
	H 180°	DyTerm® NMN			
<b>End filler ****</b>	F 155°	DyFlex®, saturated DMD **	DyBond® DMD		
	H 180°	DyTerm® NMN	DyBond® NMN		
	H 180° (220°)	DyBond® Nomex			
	220°	Nomex®			
<b>Outer wrap</b>	F 155°	DyBond® Fleece			

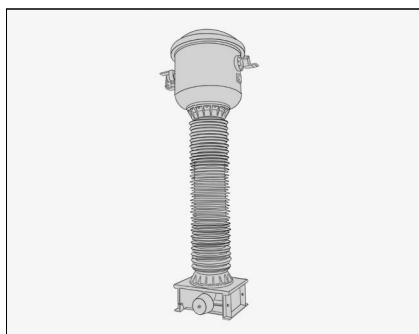


DyBond® Fleece and DyFilm® HTK

\* IDF, \*\* SDF, \*\*\* >500µ, \*\*\*\* >300µ

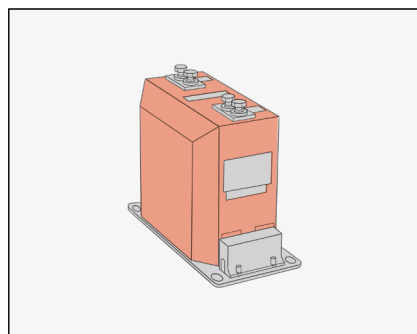
## OTHER DRY-TYPE TRANSFORMERS

Coveme provides solutions for all dry-type transformers typologies. Specific products recommended for other dry-type machines are:



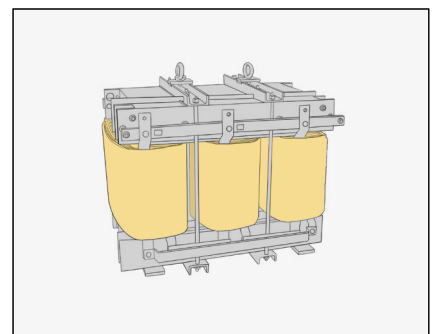
### GAS INSULATED HV INSTRUMENT TRANSFORMERS

DyBond® HB/HBB - diamond dotted prepreg of treated PET film (class B 130°C) - for insulation foil bobbins of primary coil or bushings



### CAST RESIN INSTRUMENT TRANSFORMERS

DyBond® HBB - diamond dotted prepreg of treated PET film (class B 130°C) - for insulation of primary coils



### POWER SYSTEM VPI TRANSFORMERS

Nomex® 410 - DuPont™ meta-aramid paper - for interlayer insulation or wrapping conductors

Coveme is certified ISO 9001: 2015 for quality management standards, ISO 14001: 2015 for environmental management and ISO 45001:2018 for occupational health and safety.

### COVEME ITALY CERTIFICATES



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018

### COVEME CHINA CERTIFICATES



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018



Coveme insulating materials are UL Underwriters Laboratories certified and recognized by all major certification bodies worldwide.



Coveme is IATF (International Automotive Task Force) certified as suppliers to the automotive industry



Coveme has received the Bronze Medal Ecovadis certification as the result of a corporate sustainability performance evaluation.



       
[www.coveme.com](http://www.coveme.com)

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