

IMPREGNATION RESIN

Impregnation processes compatibility

RESIN	TYPE	TRICKLING	ROLL DIPPING	HOT DIPPING
Dolphon XL-2162	Polyester	+	+	+
Damsol 3500 HIR, Dophon CC-1180 HIR	Epoxy	+	+	+
Damisol 3500 HTC	Epoxy	+	o	o
Gel coat Dolphon CW-1181	Epoxy	+	-	-
Damisol 3630 & 3631 HiR	Polyester Imide	+	+	+
Dolphon XL-2109	Polyester	o	o	+ (UV)
Damisol 3630 UVC	Polyester Imide	o	o	+ (UV)



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COMPOSITE YOUR DEMAND OF POWER

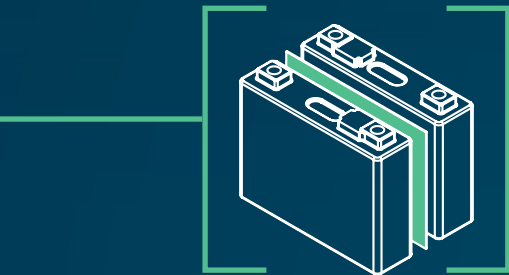


// Von Roll is the global leader in electrical and thermal insulation solutions in the automotive, energy and industrial sectors, providing solutions to new trends. //

1. CELL LEVEL

VR thermal propagation pads offer additional integrated functions. They acting as:

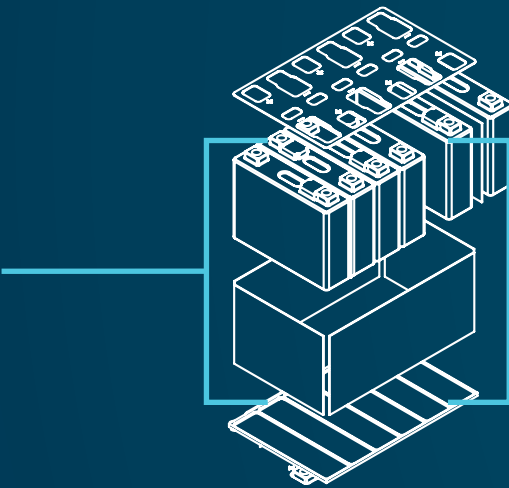
- // Thermal protection between the cells
- // Compression and tolerance pads
- // Supporting thermal management
- // Electrical Insulation



2. MODULE LEVEL

Light weight battery modules with:

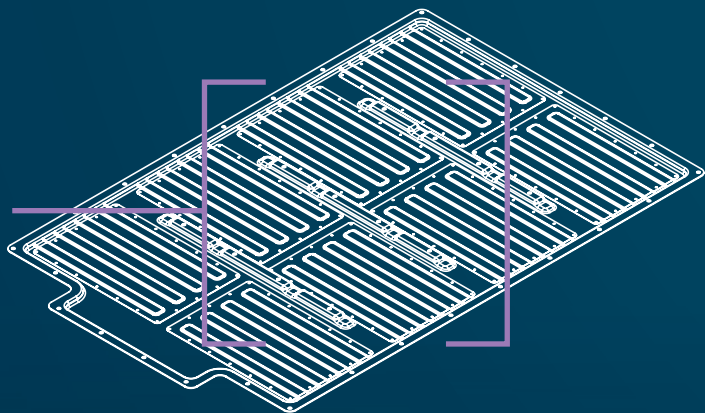
- // Housing with integrated thermal runaway protection
- // Electrical insulation concept
- // EMC protection
- // Simplified production of complex structures
- // Stability against aggressive gases
- // Crash safety



3. BATTERY LEVEL

Von Roll Automotive MPC battery cover offers:

- // Light weight
- // Easy production of complex and large structure
- // Integrated fire protection and electrical insulation structures
- // Supporting fixation structures



THERMAL PROPAGATION PADS

FIRE RETARDANT COMPOSITES

PRODUCT	TECHNICAL SPECIFICATIONS	PRODUCT BENEFITS
Shield T18 and T18-B - rigid -	// Mica plate (Mica content about 90%) // Thickness in range 0.2-50 mm // Dielectric strength >20kV/mm // Thermal conductivity 0.2W/mK // Selected Mica for best performance	// Easy machining // Excellent electrical insulation // Low weight // Propagation mitigation // High resistance to fire // UL94 V0
Shield T29 and T29G2 - flexible -	// Flexible mica sheet // Thickness from 0.2 to 0.6 mm // Thermal endurance 1200°C // Thermal conductivity 0.2W/mK // Breakdown voltage > 6 kV	// Easy machining and application on complex parts // Excellent electrical insulation // Low weight // Propagation mitigation // UL 94 V0
Shield T35-M - flexible and compressible -	// Mica / glass fleece / mica // Thickness about 1.2 mm // Breakdown voltage > 8 kV // Thermal conductivity to sheet direction 0.05 W/mK	// Cell swelling compensation // Excellent electrical insulation // Low weight // Propagation mitigation // UL94 V0
Shield T27 and T41-M - flexible and high compressible -	// Mica / insulating fiber mat / mica // Thickness from 3.5 mm to 8.5 mm // Breakdown voltage > 10 kV // Thermal conductivity to sheet direction 0.06 W/mK	// Cell swelling compensation // Excellent electrical insulation // Low weight // Propagation mitigation // UL94 V0 // Superior compressibility

BATTERY MODULES

FIRE RETARDANT

PRODUCT	TECHNICAL SPECIFICATIONS	PRODUCT BENEFITS
Mica Tubes	// Temperature and hazardous material stable (hydrofluoric acid)	// Electrical insulation // Low weight // Propagation mitigation

BUSBAR INSULATIONS

PRODUCT	TECHNICAL SPECIFICATIONS	PRODUCT BENEFITS
Mica Tapes Samicapac® T 366.92	// High temperature stable material (up to 1300degC), Breakdown voltage kV ≥ 2.5	// Electrical and thermal insulation // Easy applicable, proved in test

INSULATION LAMINATES

PRODUCT	TECHNICAL SPECIFICATIONS	PRODUCT BENEFITS
Myoflex 2N50 (2/2/2)		// UL94 VTM-0 // High electric breakdown voltage
Myoflex 2A50 (2/2/2)	// Tolerance +/-10% // Breakdown voltage > 9kV // Weight 176.0 g/m²	// UL94 VTM-0 // High electric breakdown voltage // Best tolerance

GAP FILLER / POTTINGS

PRODUCT	TECHNICAL SPECIFICATIONS	PRODUCT BENEFITS
Damisol 13682	// Not CMR classified // MDI free hardener	// 0.95 W/m.K self-extinguishing // UL94-V0 // Shore Hardness A 46

MULTI PURPOSE COMPOSITES

MULTI PURPOSE COMPOSITES COVERS

- PRODUCT BENEFITS**
- // High temperature integrated >15min @1000degC
 - // EMC shielding integrated
 - // Simple and fast production process
 - // Lighter and cheaper than current Aluminum solutions
 - // Weight benefit 20%

MULTI PURPOSE COMPOSITES HOUSINGS

- PRODUCT BENEFITS**
- // High temperature stable >15min @1000degC
 - // Controlled vent gas management
 - // Electrical insulation dielectric strength 20kV/mm
 - // Fast production process

