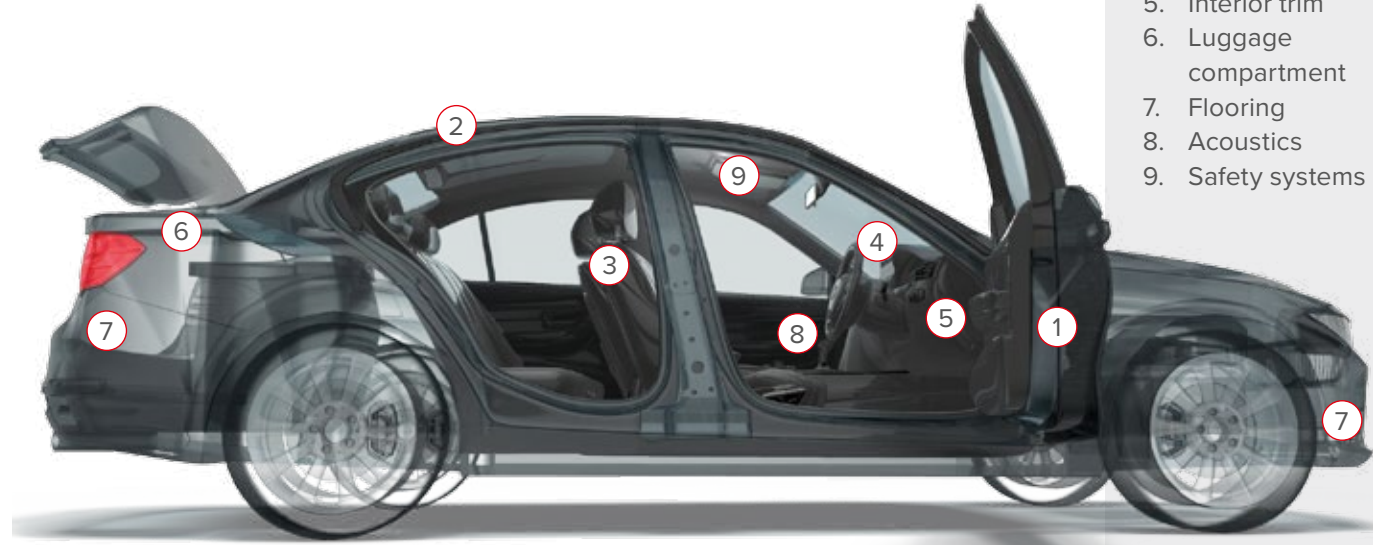




# LOW VOC BONDING AND LAMINATION INSIDE CARS

Our Interior Mounting Solutions for the Automotive Industry

# For Better Air Quality Inside Vehicles



1. Inner door
2. Overhead system
3. Seat
4. Cockpit
5. Interior trim
6. Luggage compartment
7. Flooring
8. Acoustics
9. Safety systems

## Automotive interior competence

As a leading global supplier of adhesive solutions, we are a reliable partner in the automotive interior market and have a comprehensive understanding of indoor mounting applications.

This is essential when working with mounting applications on innovative low surface energy (LSE) and recycled material, and for compliance with low-VOC standards set by governments.

Our assortment is ideal for laminating parts with difficult wet-out areas. The tapes also secure substrates around edges and reduce the risk of repulsion, especially after attachment if there is a permanent low load.

Light, rigid, and rough parts can be attached immediately and securely in both vertical and horizontal positions when applied with our tapes.

## Your needs match...

## Our offer

Application requirements		Our interior mounting assortment	
Materials	Surfaces	Tape characteristics	Tape benefits
<ul style="list-style-type: none"> <li>Plastics</li> <li>Composites</li> <li>Metals</li> <li>Natural fabrics</li> <li>Artificial fabrics</li> <li>Knitted fabrics</li> <li>Recycled materials</li> </ul>	<ul style="list-style-type: none"> <li>LSE or polar</li> <li>Smooth or rough</li> <li>Even or uneven</li> <li>Coated or colored</li> </ul>	<ul style="list-style-type: none"> <li>Adhesive formulation</li> <li>Backing system</li> <li>Tape thickness</li> </ul>	<ul style="list-style-type: none"> <li>Low VOC</li> <li>Conformability</li> <li>Convertibility</li> <li>Reworkability</li> <li>Anti-repulsion</li> <li>Temperature resistance</li> </ul>

## Core assortment according to defined requirements

Conformability	Convertibility	No overstretching	Lamination efficiency	Backing	Product
....	..	...	...	Scrim	66022
					66013
					66007
					75013
					75007
....	.	.	.	Transfer	52110
					52105
					4985
					4914
					4962
...	....	...	...	Non-woven	51571
					52215
					68646
					4987
					68625
					4959
					4943 (EUR/US) 68614 (CN)
					52210
					4970
					51970
.	....	....	....	Filmic	4965
					51966
					4967
					4928
					4954
..	...	...	...	Cloth	4964
					4934
					62508
...	...	.	..	Foam	62906

■ Adhesive ■ Backing ●●● Excellent ●● Very good ● Good ● Adequate

Product	Category	Thickness	Adhesive	Immediate adhesion to rough surfaces	PA polar plastics (ABS)	PA non-polar plastics (PP)
66022	ULTRA LOW VOC	220	Acrylic dispersion	....	....	....
66013	ULTRA LOW VOC	130	Acrylic dispersion	....	....	...
66007	ULTRA LOW VOC	75	Acrylic dispersion	....	....	..
75013	LOW VOC	130	Tackified acrylic	....	....	..
75007	LOW VOC	75	Tackified acrylic	....	...	.
52110	ULTRA LOW VOC	100	Tackified acrylic	...	...	..
52105	ULTRA LOW VOC	50	Tackified acrylic	...	...	.
4985		50	Tackified acrylic	...	..	.
4914	LOW VOC	250	Tackified acrylic	...	..	..
4962	LOW VOC	160	Tackified acrylic	...	....	...
51571		160	Synthetic rubber	...	....	....
52215	ULTRA LOW VOC	150	Tackified acrylic	...	...	..
68646		140	Tackified acrylic	...	...	..
4987		125	Tackified acrylic	..	...	..
68625		120	Tackified acrylic	...	...	..
4959	LOW VOC	100	Tackified acrylic	..	..	..
4943 (EUR/US) 68614 (CN)		100	Tackified acrylic	..	..	..
52210	ULTRA LOW VOC	100	Tackified acrylic	...	...	..
4970	LOW VOC	225	Tackified acrylic	...	....	...
51970	LOW VOC	220	Tackified acrylic	...	....	...
4965	LOW VOC	205	Tackified acrylic	..	...	...
51966	LOW VOC	200	Tackified acrylic	...	...	...
4967	LOW VOC	160	Tackified acrylic	..	....	..
4928		125	Tackified acrylic	...	...	..
4954		430	Natural rubber	....	..	..
4964		390	Natural rubber	....	..	...
4934		200	Synthetic rubber	....	...	....
62508		800	Tackified acrylic	..	...	.
62906		600	Tackified acrylic	..	..	..

tesa® products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All technical information and data above mentioned are provided to the best of our knowledge on the basis of our practical experience. They shall be considered as average values and are not appropriate for a specification. Therefore tesa SE can make no warranties, express or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose. The user is responsible for determining whether the tesa® product is fit for a particular purpose and suitable for the user's method of application. If you are in any doubt, our technical support staff will be glad to support you.

## Low VOC – Responsibility and commitment to our customers and the environment

We are following a clear ‘low emission’ strategy to fulfill the global demand for less VOCs – for **better air quality inside vehicles**.

Automotive OEMs set clear emission standards according to strict government regulations. Our tapes are especially designed to meet emission limits.

### Low emission

No fogging	Our interior mounting portfolio fulfills typical OEM fogging limits. Test method: DIN 75201 Photometric (+100°C [%]) ✓	Gravimetric (+100°C [mg]) ✓
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Our low VOC portfolio does not contain any single substances restricted by the GB regulation (China), the indoor concentration guideline by JAMA (Japanese Automobile Manufacturers Association), or the Japanese Ministry of Health, Labor, and Welfare (MHLW).

Test method:  
VDA 278

OEMs’ low VOC requirements typically focus on the forbidden single substances.

Substance	VOC content (µg/g)* of our low-VOC assortment	Typical OEM standard
Benzene	Below limit	pass ✓
Toluene	Below limit	pass ✓
Xylene (o-, m-, p-)	Below limit	pass ✓
Ethylbenzene	Below limit	pass ✓
Styrene	Below limit	pass ✓
Formaldehyde	Below limit	pass ✓
Acetaldehyde	Below limit	pass ✓
Acrolein	Below limit	pass ✓

\* Nomination limit according to GADSL (Global Automotive Declarable Substance List)



For optional consideration of low total VOC load, we provide an exclusive product range. Our ultra-low VOC portfolio shows, in addition, excellence in total VOC concentration.

The low-VOC data is obtained by a certified third party laboratory and should be considered representative. Please refer to the OEM's individual target values.

### Our complete solution package

We provide consultancy and support with:

- Choosing the optimal product and the application tools
- Implementing effective processes – clean, fast, and safe
- Testing according to OEM/OES requirements







Our management system is certified according to the standards ISO 9001, ISO/TS 16949, and ISO 14001. All our products delivered to automotive customers are listed in the International Material Data System (IMDS).