

**THERMOLAST® K TC5CEZ (Series: VS/AD/HM)**
**KRAIBURG TPE - Thermoplastic Elastomer**
**General Information**
**Product Description**

The VS/AD/HM series is your material solution for applications with velvety surfaces and wear high resistance requirements. It convinces by its adhesion properties to polar thermoplastics as well as by its resistance to nonpolar substances, especially sebum skin grease and skin oils. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.

**Typical applications**

- Automotive Interior
- Remote controls
- Cell phone covers
- Ear phones
- Handles (hand tools and power tools etc.)
- Cosmetic packaging
- Soft touch surface (thumb wheels, push buttons, switches)
- Wearables
- Function and design elements
- Car mats

**Material advantages**

- Adhesion to PA6 and PA12
- Adhesion to PC, ABS, PC/ABS, ASA, SAN
- Abrasion resistance
- Scratch resistance
- Optimized mechanical properties
- Resistance to skin oils, sunscreen or olive oil
- Halogen content (chlorine + bromine) < 900 ppm
- Soft, velvety feel

**Regulations / Approvals**

- VW 50123
- BMW GS 93042
- Mercedes-Benz DBL 5562
- Stellantis B62 0300
- Renault 03-10-104
- Stellantis MS-DC-242
- UL 94 HB
- ISO 10993-10 (Skin irritation)
- TESLA TM-1010

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Additive	• Halogen: < 900 ppm		
Features	• Abrasion Resistant	• Good Colorability	• Oil Resistant
	• Good Adhesion	• Good Scratch Resistance	• Soft
Uses	• Automotive Interior Parts	• Handles	• Soft Touch Applications
	• Cosmetic Packaging	• Protective Coverings	
Agency Ratings	• DIN 75201B		
Appearance	• Black		
Processing Method	• Injection Molding		

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density	1.13	g/cm <sup>3</sup>	ISO 1183



<b>Elastomers</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Stress <sup>2, 3</sup> (Break, 212°F)	1450	psi	ISO 37
Tensile Elongation <sup>2, 3</sup> (Break, 212°F)	650	%	ISO 37
Tear Strength <sup>4</sup>	160	lbf/in	ISO 34-1
<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Shore Hardness (Shore A)	50		ISO 48-4
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Burning Rate	1.9	in/min	FMVSS
Flame Rating	HB		UL 94
<b>Additional Information</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Adhesion to PC - (C) <sup>5</sup>	31	lbf/in	VDI 2019

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Type S2, 7.9 in/min

<sup>3</sup> Deviating from ISO 37 standard test piece S2 is tested with a traverse speed of 200 mm/min. Specimens were tempered for 20 hrs at 100°C (212°F)

<sup>4</sup> Method Bb, Angle (Nicked)

<sup>5</sup> Two-component injection molding

