

TPE-TPV Injection Molding

Thermoplastic Elastomer

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Technical Data: TPE-TPV (Thermoplastic Elastomer)

Product Description

Define and Grades

Injection-molded TPE-TPV (Thermoplastic Elastomer-Thermoplastic Vulcanizate) is a class of thermoplastic materials that combine the properties of rubber and plastic. It offers elasticity, resilience, and ease of processing, making it ideal for flexible and durable injection-molded parts.

Common grades of injection molded TPE-TPV used for injection molding parts include:

- General-Purpose TPE-TPV
- High-Elasticity TPE-TPV
- Oil-Resistant TPE-TPV
- UV-Resistant TPE-TPV
- Soft-Touch TPE-TPV



Features and Applications

Grade	Features	Applications
General-Purpose TPE-TPV	- Flexibility - Resilience - Ease of processing	Seals, gaskets, automotive interior components
High-Elasticity TPE-TPV	- High stretch and rebound properties - Elasticity	Medical tubing, sportswear, shock-absorbing components
Oil-Resistant TPE-TPV	- Resistance to oils and chemicals - Durability	Automotive hoses, industrial seals, conveyor belts
UV-Resistant TPE-TPV	- Resistance to UV radiation - Weather resistance	Outdoor equipment, automotive exterior parts
Soft-Touch TPE-TPV	- Comfortable tactile feel - Softness - Flexibility	Grip handles, consumer electronics, medical devices

Physical and Mechanical

Property	Density	Tensile Strength	Tensile Elongation	Flexural Modulus	Flexural Strength	Izod Impact Strength	Heat Deflection Temp.	Shrinkage	Hardness
Units	(g/cm ³)	(Mpa)	(%)	(MPa)	(MPa)	(J/m)	(°C)	(%)	(HRB)
General-Purpose TPE-TPV	0.9	12	800	30	10	50	60	2.5	75
High-Elasticity TPE-TPV	0.95	20	1200	50	15	80	70	2	85
Oil-Resistant TPE-TPV	0.92	15	1000	40	12	60	65	2.2	78
UV-Resistant TPE-TPV	0.91	14	900	35	11	55	65	2	80
Soft-Touch TPE-TPV	0.88	10	600	25	8	40	55	3	70

Note

The above data are reference material science data. This data reference is not binding and is not considered as authoritative test data. If your material requirements are extremely precise, please contact our material engineers. Tel | +86 18926788217 | Web | www.newayprecision.com | Contact Neway



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Benefits of Material Grades

General-Purpose TPE-TPV

Applications: General-purpose TPE-TPV offers flexibility, resilience, and ease of processing, making it suitable for various applications. It is commonly used in seals, gaskets, and automotive interior components.

Reasons for Popularity: Its popularity arises from its versatility and ease of manufacturing. General-purpose TPE-TPV provides flexibility and durability for general sealing and automotive need



High-Elasticity TPE-TPV



Applications: High-elasticity TPE-TPV is selected for applications requiring high stretch and rebound properties. It is commonly used in medical tubing, sportswear, and shock-absorbing components.

Reasons for Popularity: Its popularity is driven by its exceptional elasticity and ability to return to its original shape after stretching. This makes it ideal for applications demanding repeated flexing and stretching.

Oil-Resistant TPE-TPV

Applications: Oil-resistant TPE-TPV is crucial in applications exposed to oils and chemicals, requiring durability. It is used in automotive hoses, industrial seals, and conveyor belts.

Reasons for Popularity: Its popularity is due to its resistance to oils and chemicals, which ensures longevity in harsh environments. This makes it a reliable choice for parts exposed to industrial fluids.



UV-Resistant TPE-TPV



Applications: UV-resistant TPE-TPV is preferred for outdoor applications requiring UV radiation and weathering resistance. It is used in outdoor equipment, automotive exterior parts, and more.

Reasons for Popularity: Its popularity stems from its ability to withstand prolonged exposure to sunlight and harsh weather conditions without significant degradation. This makes it an excellent choice for outdoor products.

Soft-Touch TPE-TPV

Applications: Soft-Touch TPE-TPV is chosen for applications requiring a comfortable tactile feel, softness, and flexibility. It is used in grip handles, consumer electronics, and medical devices.

Reasons for Popularity: Its popularity arises from its ability to provide a pleasant touch sensation and flexibility while maintaining durability. It enhances the user experience in various products.



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