

SkinTouch™ ST3520-70A

Silicone-Based Thermoplastic Elastomer for Soft-Touch & Overmolding Applications

Material Type Silicone-based thermoplastic elastomer	Target Applications Wearables, watch straps, wristbands and soft-touch components	Typical Hardness 55A-90A
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Key Features

- Smooth, silky surface feel
- Excellent stain resistance and reduced dust attraction
- Plasticizer- and oil-free formulation with no surface migration
- Easy demolding and efficient gate / flash handling
- Excellent overmolding performance
- Compatible with laser marking, screen printing, pad printing and painting
- High resilience across a 55A-90A hardness range

Product Description

SkinTouch ST3520-70A is a silicone-based thermoplastic elastomer designed to combine a soft, skin-friendly surface with the processing advantages of thermoplastic molding. The material is intended for applications requiring tactile comfort, resilience, surface cleanliness and overmolding capability.

The supplied reference data describes compatibility with engineering thermoplastics such as PC, ABS and PVC for co-extrusion or multi-shot injection molding. ST3520-70A is particularly suited to wearable products such as watch straps and wristbands.

Applications

- Smartwatch straps & bands
- Wearable electronics
- Wristbands and other skin-contact components

Important: This document is a Chenvix-formatted technical reference based on the specifications contained in the supplied source document. All specifications should be independently validated under Chenvix production conditions before commercial release.

Typical Technical Data

ST3520-70A • Typical values from the supplied technical reference

Test Standard	Property	Unit	Typical Value
ISO 868	Hardness	Shore A	71
ISO 1183	Specific Gravity	—	Not specified
ISO 1133	Melt Flow Rate (10 kg / 190°C)	g/10 min	48
ISO 37	Tensile Modulus	MPa	6.4
ISO 37	Tensile Strength	MPa	18
ISO 37	Elongation at Break	%	821
ISO 37	Tensile Stress at 100% Strain	MPa	2.9
ISO 34	Tear Strength	kN/m	55
ISO 815	Compression Set (22 h / 23°C)	%	29

Processing Guide

Recommended injection molding conditions are shown below. Actual conditions may vary depending on equipment, mold design and part geometry.

Condition	ST3520-70A	Unit
Drying Time	2-6	h
Drying Temperature	80-100	°C
Zone 1 Temperature	150-180	°C
Zone 2 Temperature	170-190	°C
Zone 3 Temperature	180-200	°C
Zone 4 Temperature	180-200	°C
Nozzle / Die Temperature	180-200	°C
Melt Temperature	200	°C
Mold Temperature	20-40	°C
Injection Speed	Medium	—

Drying recommendation: use a desiccant dehumidifying dryer where possible. Processing conditions may need adjustment for individual machines and molding processes.

Storage, Packaging & General Information

ST3520-70A • Handling and application notes

Shelf Life & Storage

When stored in original, unopened containers at 32°C (90°F) or below, the supplied reference specifies a shelf life of 24 months from the date of manufacture.

Packaging

Multiple container sizes may be available. Contact Chenvix for current packaging options and regional availability.

Processing & Secondary Operations

The supplied reference indicates that the material can be processed by injection molding and supports secondary operations such as laser marking, screen printing, pad printing and painting.

Overmolding

ST3520-70A is intended for overmolding and multi-material product designs. The supplied reference identifies PC, ABS and PVC among compatible thermoplastic substrates. Bonding performance should be confirmed using the customer's actual substrate, mold design and process conditions.

Limitations & Validation

The supplied reference states that the material had not been tested for medical or pharmaceutical use. Application-specific testing is required before use in regulated, skin-contact, food-contact, or other safety-critical applications.

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SkinTouch™ ST3520-70A
Technical Datasheet

Technical notice: Typical values are not specifications for every production lot. Actual performance depends on formulation, processing, part design, substrate and test conditions. Customers should conduct application-specific testing before production approval.