

## TECHNICAL DATA SHEET (TDS)

**Product:** PVC Compound – Footwear Range

**Manufacturer:** Pragya Polymers

**Grade:** FW-S55 – Standard

**Application:** Injection Moulded Chappal Soles, School Shoes & Mid-Range Sandals

### Product Overview

A standard-grade flexible rPVC compound for everyday footwear including chappal and slipper soles, school shoe bottoms, and mid-range sandals. Balanced for good processability, consistent hardness, adequate abrasion resistance, and reliable colour hold — at a competitive price point for volume footwear producers.

Property	Test Method	Typical Value	Unit
Density @ 23°C	ASTM D792	1.25 ±0.03	g/cm <sup>3</sup>
Hardness	ASTM D2240	55 ±5	Shore A
Tensile Strength	IS 3400 / ASTM D412	≥9.0	MPa
Elongation at Break	IS 3400 / ASTM D412	≥280	%
Tear Strength	ASTM D624 Die C	≥22	kN/m
Abrasion (DIN 53516)	DIN 53516	≤180	mm <sup>3</sup>
Flex Fatigue (Ross Flex)	ASTM D1052	≥50,000 cycles (no crack)	–
Cold Flex Temperature	ASTM D1790	≤ -10	°C
Compression Set (22h @ 70°C)	ASTM D395	≤45	%
Bloom / Migration	Visual (70°C×7d)	Negligible	–
MFI (190°C / 10 kg)	ISO 1133	6–16	g/10 min
Colour Uniformity	Visual	Consistent lot-to-lot	–

### Processing Guide

Injection moulding: Melt temperature 158–175°C; Mould temperature 20–32°C. Compatible with standard hawaii/chappal injection machines. High-speed fill suitable for thin sole geometries. Store in sealed bags away from direct sunlight. Pigment and filler addition up to 5 phr permissible without significant property loss.

### Compliance & Disclaimer

*Lead-free formulation. Compliant with RoHS 2011/65/EU. Phthalate plasticisers within REACH Annex XVII limits. Typical values are indicative only and not specifications. Customer to validate for specific footwear standards (e.g. IS 15298).*