



*Your Tomorrow*

## SCIENTIFIC SERVICES GROUP

A NABL Accredited Testing Laboratory

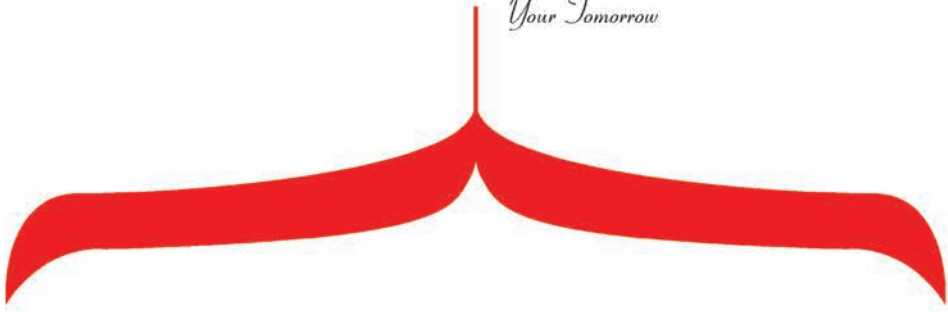


TC-7142

◆ Capability ◆ Credibility ◆ Competency



*Your Tomorrow*



**MASTERBATCH & POLYMER COMPOUND SOLUTIONS FOR**

*Your Tomorrow™*



*Your Tomorrow™*

**KONKAN SPECIALITY POLYPRODUCTS PVT. LTD.**

Plot No.37, KIADB Industrial Area, Baikampady, Mangalore-575 011

Tel +91 824 2408129/2409274, Fax No: 0824-2408657 Email: - info@konspec.com

[WWW.KONSPEC.COM](http://WWW.KONSPEC.COM)

[www.konspec.com](http://www.konspec.com)

# About Konspec

Promoted in 1987, **Konkan Speciality Polyproducts Pvt Ltd**, located at Mangalore, on the western coast of India is engaged in the development, manufacture and supply of consistent quality colours, additives, functional Masterbatches and compounds for the polymer processing industry from its multi-locational manufacturing and distribution network.

## The "KONSPEC" brand

From vibrant colours to less visible additives that enhance the value of industrial products, consumer durables, consumer goods and FMCG packaging, brand **KONSPEC** meets the complete Masterbatch and polymer compound requirements of all polymer processors.



## Quality

Quality, flexibility and customer orientation are at the forefront of its operations.

The company strictly adheres to ISO 9001 – 2015 procedures and is certified accordingly by BV.



100 % quality ratings from most of the customers over three decades

## Innovation

**KONSPEC** offers various grades of eco-friendly natural fibre reinforced plastic compounds for various application from commodity to automotive industries.



**KONSPEC** has developed a range of Bio-degradable and compostable components for various applications

## Vision

- ❖ To be among the top 3 players in the markets that we operate in.
- ❖ To offer best in class, cost competitive products with a commitment to maintain the highest quality standards.
- ❖ To constantly add value to our customers by value engineering.
- ❖ To constantly invest in new technologies so as to offer path breaking innovative products to the industry.
- ❖ To reduce our carbon-foot print by offering eco friendly products.

## Mission

- ❖ To reach a wide customer base, achieve customer satisfaction and exceed their expectations by means of latest technology by providing customized solutions to customers's needs.
- ❖ To provide technical backup to every customer, so that they derive value for money from our products/services, designed by using the latest technology / testing backup for their existing product range in their respective domains.
- ❖ To test and comply as per international standards viz. ASTM, ISO, DIN, UL etc and to meet regulations viz. RoHS, EC 72/2002 etc.



*Your Tomorrow*

## Scientific Services Group

### A World Class Lab

( Fully Equipped & NABL Accredited )  
( ISO / IEC .17025 )



TC-7142

# Scientific Services Group(SSG)

In keeping with our vision of offering the best in class products and services, a world class research and testing laboratory has been setup as a separate division-**Scientific Services Group (SSG)** equipped with the most modern world class testing equipments & library of working standards like ASTM, ISO, DIN etc... apart from catering to customer specified protocols.

The spinning off, of the SSG Division as a strategic business unit enables our customers to avail of the same high standards of testing that we use for making high quality products .The SSG also delivers Value Engineering, Proof of Concept, Productivity Solutions, Product Performance Evaluation, Trouble Shooting etc..., **in short - Value Engineering for Productivity.**

Materials	Markets	Capabilities	Expertise
<ul style="list-style-type: none"> <li>❖ Plastics</li> <li>❖ Elastomers</li> <li>❖ Composites</li> <li>❖ Films</li> <li>❖ Thermosets</li> <li>❖ Paints &amp; Coatings</li> <li>❖ Adhesives</li> <li>❖ Oils</li> </ul>	<ul style="list-style-type: none"> <li>❖ Automobiles</li> <li>❖ Flexi-Packaging</li> <li>❖ Paints</li> <li>❖ Chemicals</li> <li>❖ Food</li> <li>❖ Aerospace</li> <li>❖ Biomedical</li> <li>❖ Medical</li> <li>❖ Consumer Goods</li> <li>❖ Industrial Materials</li> <li>❖ Essential Oils</li> <li>❖ Edible Oils</li> </ul>	<ul style="list-style-type: none"> <li>❖ Analytical</li> <li>❖ Electrical</li> <li>❖ Flammability</li> <li>❖ Mechanical</li> <li>❖ Physical</li> <li>❖ Optical</li> <li>❖ Rheological</li> <li>❖ Thermal</li> <li>❖ Weathering</li> </ul>	<ul style="list-style-type: none"> <li>❖ Plastic Performance</li> <li>❖ Material Identification</li> <li>❖ Quality Programs</li> <li>❖ Failure Analysis</li> <li>❖ Specification Testing</li> <li>❖ Chemical Compatibility</li> <li>❖ Formulation Development</li> </ul>

## Accreditation

National Accreditation Board For Testing And Calibration Laboratories(NABL) has Accredited KONSPEC-SSG for Chemical & Mechanical Testing ( Certificate No :TC-7142) as per ISO/IEC 17025.

### About NABL Accreditation:

It is formal recognition of the technical competence of a laboratory. This is based on third party assessment. WTO recognizes non-acceptance of test results and measurement data as Technical barrier to trade(TBT), Accreditation is considered to be the first essential step towards removing such technical barriers.

### Global Recognition:

With an objective to ensure the acceptance of test results issued by the accredited Laboratories across the borders, NABL maintains linkages with the international bodies-

- (1) International Laboratory Accreditation Co-operation(ILAC) and
- (2) Asia Pacific Accreditation Co-operation (APAC).

NABL is a full member of ILAC and APAC. NABL is Mutual Recognition Arrangement ( MRA) signatory to ILAC as well as APAC for the accreditation programs. MRA facilitate acceptance of test results between countries which MRA partners represent. NABL accredited laboratories like KONSPEC-SSG have therefore emerged as a member of global association of accredited laboratories.

## Standards Followed



# Testing Services Provided

<b>Mechanical</b> 	<ul style="list-style-type: none"><li>❖ Tensile properties (Tensile Strength, Modulus, Elongation)</li><li>❖ Flexural Properties (Flexural Strength, Modulus)</li><li>❖ Compression strength</li><li>❖ Izod/ Charpy Impact strength</li><li>❖ Peel strength.</li><li>❖ Tear strength.</li></ul>
<b>Rheology</b> 	<ul style="list-style-type: none"><li>❖ Filter Pressure Value.</li><li>❖ Melt Volume Rate.</li><li>❖ Melt Flow Rate.</li></ul>
<b>Thermal</b> 	<ul style="list-style-type: none"><li>❖ Thermal Analysis (DSC, TGA &amp; HDT/VSP).</li><li>❖ DSC (Melting point, Glass Transition, Specific heat, Heat capacity, Crystallinity, Oxidation Induction Time)</li><li>❖ TGA (Filler content, Weight loss, Thermal Stability, Carbon Black Content etc).</li><li>❖ HDT/VSP.</li></ul>
<b>Chemical</b> 	<ul style="list-style-type: none"><li>❖ Heavy metals analysis as per ROHS</li><li>❖ International food contact application regulation like JHOSPA, AP-89, IS-9833, EN 71-3 etc.</li><li>❖ Analysis of Phthalates, PBDE &amp; PBB etc..</li><li>❖ Migration Studies-Overall migration/specific migration limits for plastics for food contact application</li></ul>
<b>Optical</b> 	<ul style="list-style-type: none"><li>❖ Total colour difference as per CIE, L,a,b.</li><li>❖ Yellowness Index..</li><li>❖ Gloss 20°, 60° &amp; 85°</li><li>❖ Carbon Black pigment dispersion.</li></ul>
<b>Weathering Test</b> 	<ul style="list-style-type: none"><li>❖ Xenon Arc weatherometer with simulation of acid rain condition.</li><li>❖ Fluorescent lamp weatherometer - UVA/UVB lamps.</li></ul>
<b>Flammability Test</b> 	<ul style="list-style-type: none"><li>❖ Horizontal burning tests(HB).</li><li>❖ Vertical burning tests(V0, V1, V2 etc.).</li><li>❖ Limiting Oxygen Index.</li></ul>

# Industry Verticals Served

The industries we serve cover

- Polymer & Polymer Applications including Masterbatches & Compounds,
- Dyes & Pigment,
- Paints,
- Chemical,
- Food,
- Automobile,
- Pharma,
- Rubbers,
- Lubricating oils.

Automobiles	Packaging (Flexi & Rigid)	Coatings	Chemicals & Intermediates
			
<ul style="list-style-type: none"><li>❖ Plastic Components.</li><li>❖ Rubber Components.</li><li>❖ Upholstery parts (Foam, Trims etc).</li><li>❖ Under hood Parts.</li><li>❖ Weathering Effects.</li><li>❖ Thermal cyclic tests.</li><li>❖ Coatings.</li></ul>	<ul style="list-style-type: none"><li>❖ Polymer Films.</li><li>❖ Tapes and Bags.</li><li>❖ Multilayer / X-laminated films.</li><li>❖ Plastic Containers.</li></ul>	<ul style="list-style-type: none"><li>❖ Coated Films(Liquid &amp; Powder).</li><li>❖ Liquid Paint.</li><li>❖ Powder Paint.</li></ul>	<ul style="list-style-type: none"><li>❖ Polymers.</li><li>❖ Pigments.</li><li>❖ Ores.</li><li>❖ Minerals.</li><li>❖ Additives.</li><li>❖ Resins.</li><li>❖ Lubricating Oils.</li><li>❖ Pharma Grade Oils.</li><li>❖ Rubber.</li></ul>

# Range of Testing Equipment Available

## Analytical

FTIR

TGA

DSC

HPLC

ICP-OES

GCMS

LC-ICP-MS

UV-Vis

## Thermal & Rheology

FPV

MFR

HDT/VSP

## Weathering

Q-UV

Q-XENON

HUMIDITY  
CHAMBER

## Mechanical

UTM

IMPACT  
TESTER

HARDNESS  
TESTER

## Flammability

HVUL-2

LOI

## Color

COLOR  
SPECTRO  
PHOTOMETER

GLOSS METER



# Product Application Development Centre(PADC)

- Injection Moulding Machine,
- Compression Moulding Machine,
- Blown film, Pipe/Tape/Filament
- Internal mixers and Laboratory Twin screw extruders,
- Proof of Concept in Application Tryouts,
- Product Performance Evaluation,
- Value Engineering,
- Productivity Solutions.

## Organization

**KONSPEC** relies on the collective effort of its committed Cohesive team of individuals to achieve their fullest potential. The company maintains a state-of-the-art edge in application technology. While the key stress is on the enduring values of teamwork, no effort is spared to inspire individual commitment and entrepreneurial behaviour. The **KONSPEC** team achieves results by finding the optimal balance between the individual and the team.

A process driven company with a track record of over 3 Decades of delivery excellence, is more than adequate proof of commitment to quality of people & process with a clear focus on teamwork.

## Technical Expertise

The **KONSPEC-Scientific Services Group** team consists of qualified and experienced professionals with expertise in compliance, analysis, development and providing troubleshooting solutions. Domain expertise and technical expertise ensures value added results and solutions to customers.

Equipment Available					
S.No	Instrument	Company	Main Features	Typical Properties	Application
1.	Fourier Transform Infra Red Spectroscopy ( FTIR)	Perkin Elmer	Finger printing of polymer, polymeric & Organic Materials	❖ Identification, ❖ Purity & Traceability	❖ Polymers & Polymeric Compounds ❖ Bio-polymers ❖ Food & Packaging industry ❖ Additives, Pigments, Fillers ❖ Rubbers & Elastomers, ❖ Speciality Chemicals, ❖ Lubricants etc..
2.	Differential Scanning Colorimetry (DSC)	Perkin Elmer	Behavioral change of materials with respect to temperature	❖ Melting point Glass transition temperature ❖ Crystallinity temperature, ❖ Oxygen induction time/temperature	❖ Polymers, ❖ Bio-polymers ❖ Polymer blends ❖ Additives, Pigments, Fillers ❖ Rubbers & Elastomers, ❖ Polymeric Compounds, ❖ Lubricants etc..
3.	Thermogravimetry Analyzer (TGA)	Perkin Elmer	Weight loss of materials with respect to temperature	❖ Volatility ❖ Moisture Content ❖ Ash content	❖ Polymers, ❖ Bio-polymers ❖ Polymer blends ❖ Additives, Pigments, Fillers ❖ Rubbers & Elastomers, ❖ Polymeric Compounds, ❖ Lubricants etc..
4.	High performance Liquid Chromatography (HPLC with UV Detector)	Perkin Elmer	Quality of additives	❖ % Purity	❖ Additives, ❖ Active Ingredients ❖ Chemicals etc..
	High performance Liquid Chromatography (HPLC with DAD Detector)	Agilent Technologies	Quality of additives	❖ % Purity	❖ Additives, Chemicals ❖ Active Ingredients ❖ Amines etc..
5.	Inductively Coupled Plasma - Optical Emission Spectrometer ( ICP-OES)	Perkin Elmer	Heavy Metal Analysis	❖ Heavy metal in ppm/ppb levels	❖ Colourants, Pigments ❖ Minerals, Metals, Toys ❖ Food & Packaging industry ❖ Masterbatches, Fillers, ❖ Additives, resins ❖ Polymer compounds etc.
6.	Liquid Chromatography - Inductively Coupled Plasma - Mass Spectroscopy (LC-ICP-MS)	Agilent Technologies	Heavy Metal Analysis	❖ Trace metal analysis with excellent limit of detection in ppt levels like Cr <sup>6+</sup> & Cr <sup>3+</sup> , As <sup>5+</sup> & As <sup>3+</sup> . Methyl Mercury Hg <sup>2+</sup> analysis	❖ Pharmaceutical & biomedical analysis ❖ Food & Packaging ❖ Plastics, Polymers, Toys ❖ Food & Agricultural products
7.	Gas Chromatography - Mass Spectrometry with Headspace (HS-GC-MS with FID Detector)	Perkin Elmer	Identification	❖ Identification of compounds, volatile Fragrance oil, Edible oil, PPB, PBDE, Phthalates	❖ Additives, ❖ Polymers, Toy Industries ❖ Fragrance oil ❖ Edible oil ❖ Perfumes etc..
	Gas Chromatography - Mass Spectrometry with Headspace (HS-GC-MS with FID & ECD Detector)	Agilent Technologies	Identification	❖ Identification of compounds, volatile Fragrance oil, Edible oil, PPB, PBDE, Phthalates, BPA, PCB, Poly-aromatic amines	❖ Pharmaceutical ❖ Pesticides & Agricultural ❖ Plastics & Rubbers, Toys ❖ Environmental ❖ Resins & Chemicals ❖ Toy Industries
8.	Colour Spectrophotometer	Data Colour 650	Colour matching	❖ L,a,b values colour comparison	❖ Polymer Masterbatches ❖ Paints ❖ Powder coatings

S.No	Instrument	Company	Main Features	Typical Properties	Application
9.	Digital Gloss-meter	Gloss 333	Check Gloss	❖ Measure Three angle Gloss ( 20°, 60°, 85°)	❖ Automotive ❖ Paints, Inks & coatings ❖ Glass & Metal surface ❖ Consumer Electronics ❖ Anodized Metals
10.	UV-Vis Spectrometer	Perkin Elmer	% Transmittance & % Absorbance	❖ Concentration of unknown	❖ Pharmaceuticals-Packing products ❖ Food & Agriculture ❖ Microbiology ❖ Bio-polymers ❖ Plastics & Additives ❖ Cosmetic & Drugs
11.	Accelerated Weathering Tester ( Q-UV)	Q- Lab	Properties against UV degradation using Fluorescent Light ( Acute UV)	❖ Mechanical studies against UV degradation	❖ Polymer fabrics, ❖ Films, Sheets, FIBS, ❖ Paints, Coatings ❖ Automobile parts
12.	Xenon Test Chamber ( Q-Xenon)	Q- Lab	Properties against UV degradation & Visible solar radiation using Fluorescent Light (Natural Light)	❖ Light fastness, ❖ Weather Fastness ❖ Acid rain simulations	❖ Automotive industries ❖ Polymer additives, composites, compounds pigments ❖ Textiles & Paints.
13.	Melt Flow Index Tester ( MFI)	Zwick Roell	Flow characteristics of polymer compounds & Masterbatches	❖ MFI ❖ MVR ❖ Melt density	❖ Polymers ❖ Polymer Compounds ❖ Masterbatches ❖ Bio-polymers
14.	Heat Deflection Temperature/Vicat Softening Point ( HDT/VSP)	Advance Equipment	Thermo Mechanical behaviour	❖ Bending under load & temperature	❖ Polymers ❖ Polymer Compounds & composites
15.	Universal Testing Machine ( UTM)	Zwick Roell	Mechanical behaviour of materials	❖ Tensile Strength/ Elongation /Modulus ❖ Flexural Strength/ Modulus ❖ Compression Strength	❖ Polymers, Bio-polymers ❖ Polymer Compounds & composites ❖ Rubbers & Elastomers ❖ Films, Fabric, ❖ Filaments
16.	Impact tester (IMPACT)	Zwick Roell	Impact behaviour of materials, both Izod & Charpy	❖ Impact Energy/Impact Strength	❖ Polymers ❖ Bio-polymers ❖ Polymer Compounds & composites
17.	Flammability Test Chamber ( HVUL-2)	Atlas Lab	Flammability behaviour materials	❖ Horizontal & Vertical Burning	❖ Polymers ❖ Polymer Compounds ❖ Foams, Rubbers ❖ Textiles, ❖ Polymeric materials
18.	Limiting Oxygen Index ( LOI)	Dynisco	Flammability behaviour materials	❖ Degree of burning with respect to oxygen concentration	❖ Polymers, Polymer Compounds & materials ❖ Foams, Rubbers ❖ Textiles,
19.	Filter Pressure Value ( FPV)	Lab-Tech	Dispersion of Pigments	❖ Flow characteristics of pigments under pressure	❖ Pigments ❖ Polymer Masterbatches
20.	Hardness Tester	Yama Engineers	Hardness test	❖ Measure Shore A & Shore D Hardness of materials	❖ Plastics & Rubbers ❖ Bio-plastics

S. No	Instrument	Company	Main features	Typical Properties	Application
21	Coefficient of Friction Tester	Testronix	To measure the static and kinetic coefficient of friction in plastic films & sheets	❖ Its defined as the ratio between friction force and normal force	❖ Plastic films ❖ Plastic sheets, ❖ Laminates ❖ packaging material,
22	Environmental Stress Crack Resistance (ESCR) Tester	Testronix	Impact of extreme environmental factors on Plastic, rubber & Polymers	❖ To Ascertain the physical properties	❖ Plastics ❖ Rubbers & ❖ Polymers
23	Opacity Tester	Testronix	Transparency or opacity level of plastic films & sheets.	❖ To determine optical characteristics	❖ Plastic films ❖ Plastic sheets, ❖ Laminates ❖ packaging material,



**Innovative & Eco-Friendly  
Products/Solutions for low carbon footprint**



*Your Tomorrow*

**Konkan Speciality Polyproducts Pvt. Ltd.  
Scientific Services Group - SSG  
Plot No.37, KIADB Industrial Area Baikampady.  
Mangalore-575 011**

Tel :0824-2408129/2409274

Mob:9480843627, 9035014616

Email: - ssg@konspec.com,

tech.ssg@konspec.com

qm.ssg@konspec.com

techsupport@konspec.com



TC-7142

[www.konspec.com](http://www.konspec.com)