



वस्त्र समिति

भारत सरकार, वस्त्र मंत्रालय

Textiles Committee
Government of India, Ministry of Textiles

GI APPLICATION No.

510 - -

P. Balu Road, Prabhadevi,
Mumbai - 400 025

Tel: +91-22-6652 7507/510

Fax: +91-22-6652 7509

E-mail: secytc@gmail.com

Website: www.textilescommittee.gov.in

No: 10/47/6/2012 MR

9th October, 2014

The Registrar,
Geographical Indications Registry,
Intellectual Property Office Building,
GST Road, Guindy
Chennai - 600 032

Subject: Application for registration of Logo of selected craft indications of India.

Sir,

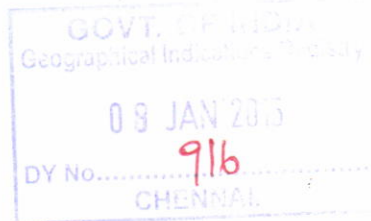
The Textiles Committee in collaboration with O/o the Development Commissioner (Handicrafts) has prepared the application for registration of logo of the following products under the Geographical Indication (GI) Act, 1999.

- 1 Karnataka Bronzeware, Karnataka
- 2 Ganjifa Cards of Mysore, Karnataka
- 3 Navalgund Durries, Karnataka
- 4 Thanjavur Art Plate, Tamil Nadu
- 5 Swamimalai Bronze Icons, Tamil Nadu
- 6 Temple Jewellery of Nagercoil, Tamil Nadu
- 7 Palakkad Maddalam, Kerala
- 8 Brass Broidered Coconut Shell Crafts, Kerala
- 9 Screwpine Craft of Kerala

It may be noted that the above products have already been registered under the said Act and the O/o of the DC(Handicraft) is the registered proprietor. Hence, the application of Logo is being filed by the O/o the DC(Handicraft).

Therefore we are submitting here with the (1) Application in triplicate (2) Affidavit of the applicant (3) Application fees (4) other supporting documents for the registration of the Logo of the above mentioned craft indications.

Thanking you,



Yours faithfully,

(Signature)
(Dr P Nayak)
Secretary

Encl: As above & cheque No: '529856' & '529859' for
RS 30,000/- & RS 15,000/- respectively.

GI APPLICATION No.
510 --



भारतीय स्टेट बैंक
State Bank of India

(00290) - WORLI (NORTH), MUMBAI
NIRLON HOUSE, DR. ANNIE BESANT ROAD WORLI, MUMBAI
MAHARASHTRA 400030
IFS Code: SBIN0000290

19 DEC 2014

केवल 3 महीने के लिए वैध / VALID FOR 3 MONTHS ONLY

19 APR 2013
D M M Y Y Y Y

Reval: date on
को या उनके आदेश पर OR ORDER

PAY The Registrar Geographical Indication

रुपये RUPEES Fifteen thousand only

अदा करें ₹ 15000/-

खा. सं. 10865756128
A/c No.

Prefix :
0438200021

VALID FOR Rs. 5,000,000.00 & UNDER

R. PREMANAND
CHIEF ACCOUNTS OFFICER
TEXTILES COMMITTEE

MULTI-CITY CHEQUE Payable at Par at All Branches of SBI

Please sign above

⑈ 529859⑈ 400002088⑈ 000007⑈ 29



सत्यमेव जयते

Geographical indications Registry

Intellectual Property Building,
G.S.T. Road, Guindy, Chennai - 600 032

Phone: 044-22502091 & 92 Fax : 044-22502090

E-mail: gir-ipo@nic.in



INTELLECTUAL
PROPERTY INDIA

Receipt

CBR NO :2519

Date : 08-01-2015

TO

Generated by :BABU

DEVELOPMENT COMMISSIONER (HANDICRAFTS),
MINISTRY OF TEXTILES, GOVERNMENT OF INDIA, SHASTRI BHAWAN, 26 HADDOWS ROAD ,
CHENNAI,
TAMIL NADU,
600 006,
INDIA

C B R Details :

Application No	Form No	Class	No of Class	Name of GI	Goods Type	Amount Calculated
511	GI-1A	16	1	Ganjifa Cards of Mysore (Logo)	Handi Crafts	5000
510	GI-1A	6	1	Karnataka Bronzeware (Logo)	Handi Crafts	5000
512	GI-1A	27	1	Navalgund Durries (Logo)	Handi Crafts	5000

Payment Details :

Payment Mode	Cheque/DD /PostalNO	Bank Name	Cheque/DD/Postal Date	Amount Calculated	Amount Paid
Cheque	529859	State Bank of India	19-12-2014	15000	15000

Total Calculated Amount in words : Rupees Fifteen Thousand only

Total Received Amount in words : Rupees Fifteen Thousand only

***** This is electronically generated receipt,hence no signature required *****

GI APPLICATION No.

510 - -

**The geographical indications of goods
(Registration and Protection) act, 1999**

FORM G1-1A

**Application for Registration of LOGO of Karnataka
Bronzeware**



Karnataka
Bronzeware India

GI APPLICATION No.

510

**THE GEOGRAPHICAL INDICATIONS OF GOODS
(REGISTRATION AND PROTECTION) ACT, 1999**

Received Rs. 5000 in cash/
Cheque/DD/MO on 8.1.2015
vide entry no. 2519 in the
register of valuables
✓
Cashier [Signature] D.D.O.

FORM G1-1A

1. Application is hereby made for the registration in Part A of the Register of the accompanying Logo of the geographical indication furnishing the following particulars:-

1A. Name of the Applicant:

O/o: The Development Commissioner (Handicraft) represented by

Shri P. Mallikarjuniah Regional Director(SR), Development
Commissioner (Handicraft), Ministry of Textiles, Govt. of India.

1B. Address:

**Development Commissioner (Handicraft)
Ministry of Textiles, Govt. of India
Shastri Bhawan, 26 Haddows Road
Chennai - 600 006 India**

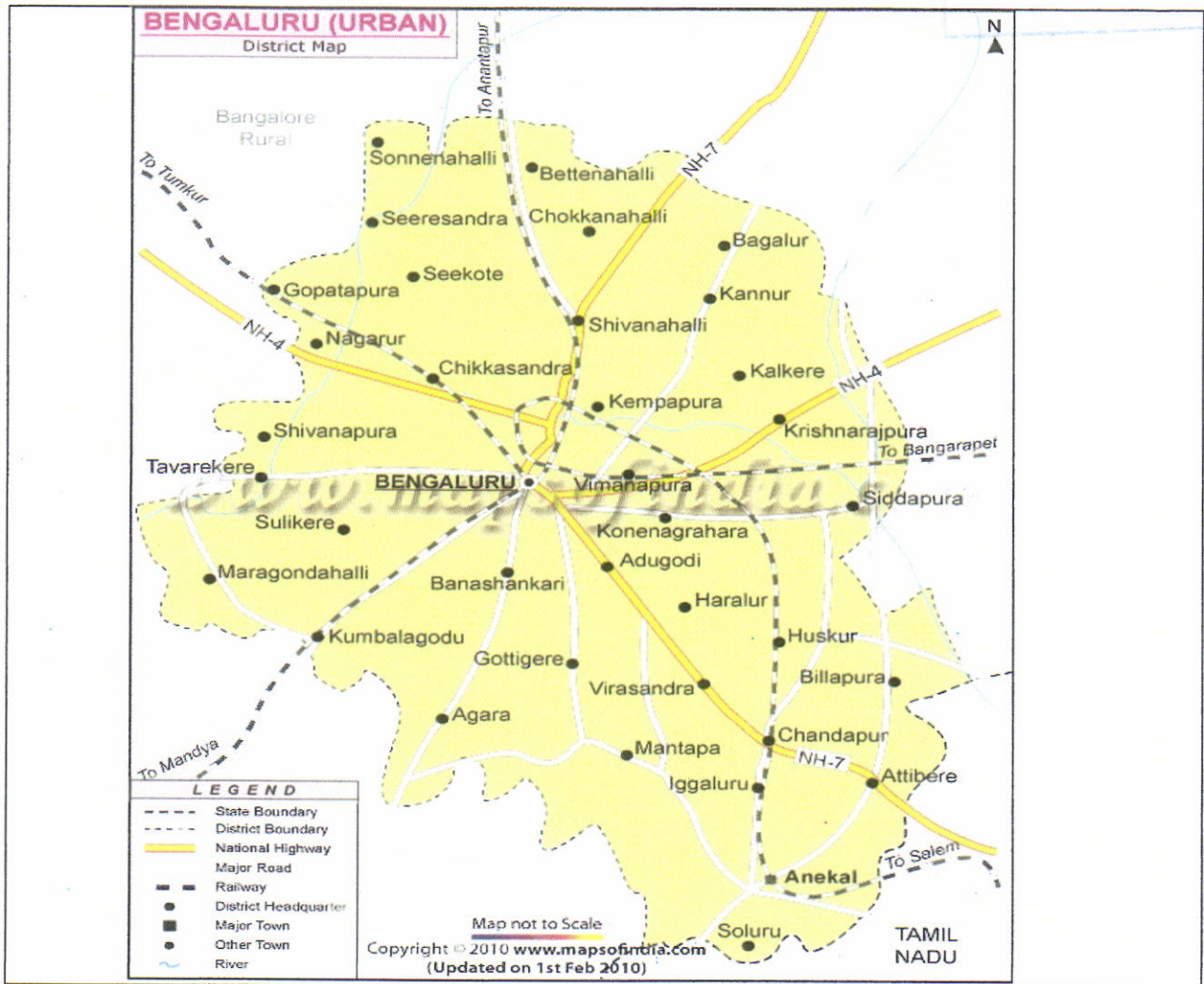
1C. Name of the geographical indication: Karnataka Bronze Ware



Karnataka
Bronze Ware India

1D. Type of Goods: -	Class- : 6	Religious idols, temple bells, vessels & other ritual ware
1E. Goods	: Bronze Ware	
1F. Type of Goods	: Handicrafts	
1G. List of Association of Persons/producers/organisations /authority: Attached		
1H. Description of Goods: The temple bells of Karnataka are celebrated for the depth and purity of their tone and also for their elegant architectonic forms. Since bell metal is considered to be the purest of all materials, it is not only used for ritual purposes, but also for utensils and other items for everyday use.		
1I. Geographical area of production : Karnataka bronzeware are produced in the districts of Bangalore, Kolar, Chitradurga and Mandya of Karnataka. Shivarapatana in Kolar district, Nagamangala in Mandya district, Challakere and Nayakanahatti in Chitradurga district.		





1J. Historical Origin:

The Indian Bronze activity can be classified into three geographical regions: namely,

1. Lands lying in north India between Vindya Hills and Narmada River
2. Narmada river and Tungabhadra
3. Tungabhadra to Cape Comorin (southern tip)

The area lying under the third division is most famous of them, and here, both stone carving and bronze casting were patronized under different dynasties viz. Pallava, Chola, Pandya, etc. The present Karnataka comes partly under the second and third divisions. In Kanataka Bronze casting flourished under Chalukyas, Rastrakutas, Hoysals and the Vijayanagara period. The king Hoysala king Vishnuvardhana after his conversion to Vaishnava faith, erected many magnificent temples with exquisite metal icons. In the inscriptions of the celebrated Raja Raja Chola and Rajendra Chola of Chola dynasty, both of them conquerors of old Mysore State, there

are referenes of images cast in hollow and solid. During the period of Hoysala and Vijayanagara kings, the custom of presenting metallic images to temple seems to have gained popularity, and this practice was later kept up by Mysore Royal line and is continuing till today. Thus under royal patronage, the craft naturally developed and flourished well in the state through the centuries.

The temple bells of Karnataka are celebrated for the depth and purity of their tone and also for their elegant architectonic forms. Since bell metal is considered to be the purest of all materials, it is not only used for ritual purposes, but also for utensils of everyday use. Unlike people of Europe and Middle-Eastern countries, Indians do not traditionally use glass and porcelain, with the result that all requirements of the household- glasses, cups, plates, serving dishes and containers used to be made of metal. The bell metal, which is an alloy of copper and tin, is not reactive to acids. It is a specialty of some areas. Normally, sour dishes such as those cooked with vinegar and lemon juice cannot be served in vessels of inferior metals like copper and brass, unless these are silver plated or tinned. Innumerable metal techniques have been mastered in India. The lota, a small rounded-bottomed vessel used for pouring water, is one of the most expressive forms we have. Traditional Indian metal ware has worldwide reputation in overseas market because of its superior workmanship and modest price. Wide ranges of objects are made by craftsmen who have devoted their lifetime in mastering the manufacturing processes. Indian bronzes find place in the museum at Boston, New York, Paris and London, Berlin etc. A pilot centre was started at the All India Handicrafts Board at Bangalore in 1958 to revive the traditional skills of cast bronzes in India. The icons at south India have won wide representation for their exquisite, elegance and high degree of artistic projection.

The craftsmen engaged in making bronze icons known as 'Stapathies' belong to Vishwakarma community. These Stapathies are bound by faith, tradition and religion for making bronze icons. Bangalore, the capital city of Karnataka is the chief craft pocket for Bronze Casting. Bangaore invites lot of National and International tourists. In olden days kings used to patronage this craft for palaces and temples. Bronze Casting had flourished in and around Mysore for this reason. Namely Shivarapatna in Kolar district, Nagamangala in Mandya district, Challakere and Nayakanahatti in Chitradurga district.

The craftsmen known as 'Stapathies' should be well versed in 'dhynanaslokas', which gives the physical attributes to the deity. This helps Stapathy decide proportions of body of the image. The traditional crafts persons were an unbroken chain of evolution passing from teacher to the disciple and father to son. The bronzes of south in general have won a worldwide reputation for their intrinsic beauty, aesthetic content, and artistic merit, and of Karnataka in particular, for decoration of costumes. Oflate, due to the influence of commerce, bronze images which show an amalgamation to various schools of thought, are manufactured in Karnataka.

1K. Specifications:

Bronze icons are made as per shilpa shastra:

1. 'Samabanga' – figure without any bends
2. 'Abanga' – figure with slight bend in which the body rests on one leg,
3. 'Tribanga' – figure with more than one obvious bends
4. 'Atibanga' – figure greatly bend

Bronze is a mixture of copper and tin alloys. Those containing more than 11% tin have no engineering applications because of their increasing brittleness and hence, decreasing ductility. However, high-tin bronzes containing 20-30% tin, also known as B bronze or speculum or bell metal, have long been shaped and utilized as consumer articles such as mirrors, kitchen wares, musical instruments, bell and ornaments in many parts of the world, including India.

The craftsmen who make the images in Bronze are known as 'Stapathies'. They should be well versed in 'dhyanaslokas', which gives the physical attributes to the deity. This helps Stapathy decide proportions of body of the image. The traditional crafts persons were an unbroken chain of evolution passing from teacher to the disciple and father to son.

Further, bronze is mixtures of copper and tin alloys those containing more than 11 % tin have no engineering applications because of their increasing brittleness and hence decreasing ductility. However, high tin bronzes containing 20-30 % tin also known as B bronze or speculum or bell metal have long been shaped and utilised as consumer articles such as mirror, kitchen wares, etc. The artisans of the karnatka who makes bell metal are well verse of the characteristics and their human skill of making these crafts is different to others. The traditional crafts persons were an unbroken chain of evolution passing from generation to the generation.

1L. Production Process:

The raw materials used are Copper, Brass, Lead, Silver and Gold for making images. Bee wax for preparing wax model of the desired figure for casting. Clay, Charred husk, cow dung, binding wire are used for preparing mould for casting.

Preparation of Wax

Pure bee wax is used for making wax models or patterns of the icon. As pure wax is too flexible, it is mixed with resins to make it slightly hard and melted with groundnut oil and little black powder from lamp to avoid transparency. Proportion of lamp black powder (1kg : 200gms) pure bee's wax/resin from the tree Damara Orientalis / ground nut oil = 4/4/1. The powdered resin is mixed with groundnut oil and the mix is heated until a thick liquid forms. Next, bee's wax is added to the thick liquid and stirred until it liquefies and gets well mixed (generally 300-250°C). This wax melt is strained through a fine metal sieve or coarse woven

cloth into a container of cold water, thus allowing it to solidify. The wax mix is then used for wax model making.

Wax model making

Wax, model making is a crucial step wherein the craftsman's creativity decides the excellence of the model, and in turn, of the icon to be cast. The head, body and limbs of an icon are made separately by hand, using the wax mix after making it malleable by warming it and later shaping it using spatula, knife and scraper. The finished parts of the icon are joined by using a hot iron tools as a soldering iron to melt their joining surfaces. The model or pattern for the icon's pedestal is made as an integral part of the icon if the icon is small, or individually if the icon is large. To strengthen the wax pattern as well as to facilitate the flow of molten metal into various parts, a few wax cross strapping and a wax rod ending with a funnel shape (spruce and runner) are also joined to the pattern at appropriate locations. The wax pattern or model of the icon, with a gating system for metal flow is now ready.

Mold making

Mold making, by investing, and melting and draining of wax from the mold cavity. Mold making involves coating the wax pattern with layers of clay, known as investment (3 layers for small icons and more layers for larger icons). Recycled clay powder from the old mould is sieved and mixed with new red clay, or Mangalore tile is powdered and red clay used for pottery is mixed. For more sticky clay: 10% red clay, for less sticky clay: 15-20% red clay. Different clay is used for each layer. The first coat, about 3mm thick, is made when fine loam, or alluvial soil collected from the river bed is finely ground with charred paddy husk and mixed with cow dung, forming a thick mixture. Gunny bag jute fibres are mixed in clay for improving binding and workability. The first coat performs two important functions: Protection of the wax model and reproduction of the minute contours of the model. Thus, no portion of the wax model should be left uncovered except the wax spruce top surface, which are the outlet for the melted wax while dewaxing and the inlet for molten metal during casting. Further, no air bubbles should be allowed on the surface of this first coat, since they can spoil the mold cavity surface finish, and, in turn, that of the icon. During the clay – coating application, the wax model is kept on a piece of paper or cloth on the floor or a table, depending upon the size of the mode, to avoid its deformation.

Melting and Casting

Preparation of alloy and casting.

Shilpasastras prescribe the composition of the alloy to be chosen for casting sacred icons. Pure copper or 24K gold is not workable, is difficult to give finishing and has more shrinkage. Therefore, an alloy is always used for sculpting. Archaeologists have excavated icons and idols proving that for the last 3,000 years, panchaloha (literally meaning an alloy of 5 metals) has

been most widely used for making icons and idols. This five-metal combination of Cu, Au, Ag, Pb and Zn was considered to be a highly auspicious composition and is still used for icons cast for worship. The important sources of information on making panchaloha are recorded in ancient Sanskrit and regional literature, with artisans from South India perfecting the technology. Other compositions of panchaloha cited include Au, Cu, Ag, Pb, Fe, and Sn as well as the combination of Sn, Cu, Fe, Pb and brass. However, because of their high cost, gold and silver are no longer used in general purpose icons. An alloy made by mixing copper, brass and lead in the ratio 29:2:1 is commonly utilized for general icon. Another alloy made by copper, brass and silver in the ratio 20:5:1 is also used. In some cases tin is added in an amount equal to the lead content. Lead is added to make the alloy more malleable so that shiselling and engraving of the icon will be easy. The artisans believe that if the icon is made with copper alone, it will not have a lasting shine, whereas adding a little brass to copper results in a lasting shine and a lower melting point. It may be noted that brass is added as a master alloy to introduce zinc.

Copper 1100°C, Brass-800 °C... bronze in between these two melting points.

More Zn, tin – Less temperature is needed for melting.

Less Zn, tin – More temperature is needed for melting.

For high temperatures crucible is required. Crucible is made of fine clay and in plumb ago; the latter are more costly but much lasting and economical. Pair of tongs well fitted in crucible is used to lift it. Brass also increases melting point of alloy and gives a pleasing colour to finished product. The artisan's calculate the weight of the alloy required to occupy the mold at ten times the weight of the wax model. Melting is carried out in a coke / charcoal-fired furnace using either a commercially available clay graphite crucible or a crucible made of clay by the artisans. Approximate time of melting of alloy: 5 Kgs – 1.5 hrs ; 50 Kgs – 2.5 hrs

Boric acid salt is used for purifying metals. When the alloy is being melted, the hollow mold is heated to red hot to drive away air bubbles from the inside of the mold cavity as well as to prevent sudden cooling of the molten metal, which could lead to an uneven surface finish. Heating the mold also prevents the mold from exploding because of the high heat of the liquid metal. If the mold isn't completely baked, the metal will sputter and bubble when you pour it in, often shooting balls of still-molten metal flying spoiling the mould completely.

Mold opening; finishing, engraving and polishing ; and colouring

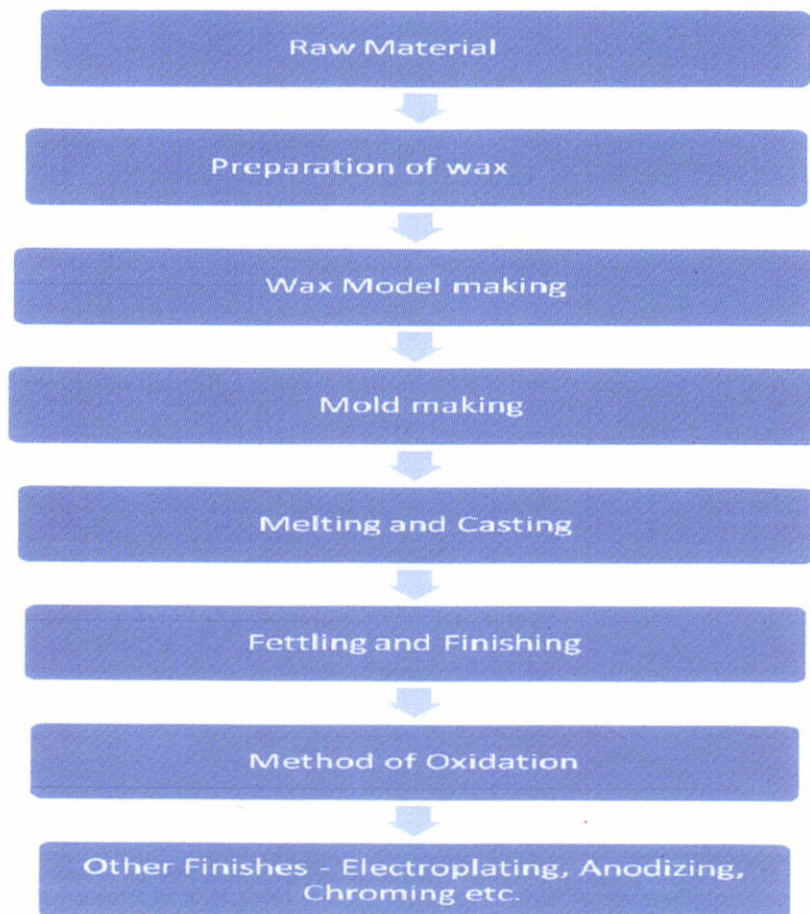
The breaking of the mold to remove the icon is of great significance to the craftsman, since it is not merely an object buta transcendental entity. The fettling of the casting or breaking of the mold is initiated only when the mold has sufficiently cooled. The mold portion holding the icon head is always broken first followed by remaining portions. The iron rods and wires used as

reinforcements are separated and preserved for reuse. The clay sticking to the icon is scrapped and then the connecting rods used as support in complicated icons are removed by chiseling. The contour and details of the original wax pattern are recaptured by smoothing the uneven surfaces and then by chiseling. The details of dress and ornaments as well as other final touches are engraved into the icon. The icon surface is smoothed by rubbing it with fine grade emery paper, and then it is cleaned with tamarind and a soap-nut-water mix and scrubbed with a wire brush. Finally, the piece is brushed with polishing sand and water. Brass wire brush finish, lime, tamarind, water wash were generally adopted for finishing in olden days. The well-finished icon is shown in after the two individually cast parts have been riveted. The icon of the child Krishna on a banyan tree leaf (Aal elai Krishna in Tamil) was made by Swamimalai artisans. Generally, they use 80% copper, 20% brass and 5% lead for general purpose icons. However, for icons to be installed in temples for worship, panchaloha containing 50% Cu, 16% Au, 8% Ag, 10% brass and 16% Pb is used. Traditionally in temples bronze idols were cleaned every day during Abhishekam.

Method of Oxidation

Oxidation of copper figures into different colour shades. Iron wire is heated to remove all galvanization in it and the wire is wound round the figure to be oxidized from top to bottom. Then this wired figure is dipped into diluted sulphuric acid for one hour. (Only 5 years or older sulphuric acid give copper effect). Later, small pieces of oxidizing salt is (yellow ammonium sulphide) diluted with water and applied on the figure. This process blackens the figure immediately. They are sundried and smeared with coconut oil to get glossy shine. Brass figure can be oxidized to get copper effect. Piece of pure copper is put in a solution of nitric acid, which dissolves and turns to green colour liquid of copper sulphate. This solution is applied on the brass figure and heated with blow lamp till acid on the top turns to ash. Then figure is cleaned with brush and coconut oil is applied.

Other Finishes: Electroplating, Anodizing, Chroming, etc.

Production Process Flow Chart**1M. Product Profile:**

Religious idols, temple bells and vessels, lamps and other ritual ware cast in Bronze.

Product Specification

Bronze icons are made as per shilpa shastra:

1. 'Samabanga' – figure without any bends
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The craftsmen who make the images in Bronze are known as 'Stapathies'. They should be well

versed in 'dhyanaslokas', which gives the physical attributes to the deity. This helps Stapathy decide proportions of body of the image. The traditional crafts persons were an unbroken chain of evolution passing from teacher to the disciple and father to son.

Materials used in lost wax process for casting idols, kitchen utensils, lamps and bells etc., are:

List of Materials:

Copper	:	Lamp black powder
Tin	:	One bag sea sand
Zinc	:	Clay
Lead	:	Charred paddy husk
Brass	:	Cow dung
Lamp black powder	:	Gunny bag jute fibers
Ground nut oil	:	Binding ware
Resin from the tree Damara	:	Orientalis, Pure Bee wax

1N. Uniqueness:

The bronze casting process in Karnataka is ritualistic and has been practiced as a traditional craft till now since the last 200 years without changing the process. Another interesting part to note is the divisions done for a particular sculpture prior to its making which is very specific to Karnataka and is based on the Shilpashastras.

Before taking up the making of wax model for masterpiece, the shloka given in the Shilpashastras is chanted and details are worked as per the drawing and followed with the preparation of wax modeling. The artisan takes note of the proportion and measurements as laid down in Shilpashastras for icon making and makes a pattern rule. This was earlier done with a narrow ribbon of coconut tree leaf cut to the icon length requirement and folded at different lengths in proportion to the length of various parts of the icon. Now artisans just use the drawings from their ancestral data bank. The unit of measurement in icon making is tala which is the distance between the hairline and the end of the lower jaw.

The tala is divided into 12 equal parts called angulas (equivalent to the breadth of a finger). Each angula is divided into eight yava (the size of a barley grain) and so on until the smallest unit, a paramu (smaller than the end of a single hair). The craftsmen use traditional tools, most of which are made by them.

Some examples of the proportion system:

Ganesha	Panchatala
Rama and Lakshmana	Ashthatala
The incarnation of Vishnu	Dashatala
Lord Shiva and his manifestations	Navatala
Arm length	2.5 times tala
Thigh width	tala
Crown	1.5 times tala

The craftsmen could use his ingenuity only with in the limits of these rules. This may have prevented any real originally artistic creations, but it did ensure aesthetic production of images. The figures of deities are ideals rather than copies of real human figures. The Nataraj is meant to depict joy and sense of victory experienced during cosmic dance rather than the mere portrayal of a dancing figure. The image of Buddha rises above mere contemplation and seeks to depict perfect equilibrium and bliss.

10. Inspection Body:

The inspection body consisting of the following have been constituted for maintaining the quality of the product

- Officer In-charge, O/o the Development Commissioner (Handicraft), Bangalore/Mysore.
- Director (Market Research), Textiles Committee, Ministry of Textiles, Mumbai
- Representative of Producers Associations, of the product and Prominent Master Artisans.

1P.Others:

The craft making is socio-culturally associated with the artisans. The items are marketed locally by the crafts persons to Government Emporia, Private Emporia and other dealers. These items are also marketed through the exhibitions organized through the length and breadth of the country. Market Development Programmes of the O/O DC (H) are successful in developing marketing network within the country. The Karnataka State Handicrafts Development Corporation Ltd., is marketing the Bronzes through their showrooms established at various places.

Few selected Bronzes are being exported. The export market for Bronzes is very limited due to its traditional and religious form.

Along with the Statement of Case in Class - 6 in respect of the name(s) of whose addresses are given below who claim to represent the interest of the producers of the said goods to which the geographical indication relates and which is in continuous use in respect of the said goods.

2. The Application shall include such other particulars called for in rule 32(1) in the Statement of case. The statement of case attached.
3. All communications relating to this application may be sent to the following address in India.

Development Commissioner (Handicraft)
Ministry of Textiles, Govt. of India
Shastri Bhawan, 26 Haddows Road
Chennai - 600 006 India

4. In the case of an application from a convention country the following additional particulars shall also be furnished.

- a. Designation of the country of origin of the Geographical Indication.
- b. Evidence as to the existing protection of the Geographical Indication in its country of origin such as the title and the date of the relevant legislative or administrative provisions, the judicial decisions or the date and number of the registration, and copies of such documents.

Not Applicable



SIGNATURE

NAME OF THE SIGNATORY

P MALLIKARJUNIAH

REGIONAL DIRECTOR (H)

Dated this _____ day of _____

20
Office of the Development Commissioner
(HANDICRAFTS), Southern Region,
Ministry of Textiles, Govt. of India,
Shastri Bhanvan, Chennai - 600 008