

# Importance of Intellectual Property Rights (IPR) in Fibre Reinforced Plastics

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## Introduction

Intellectual property rights are consisting of patents, trademarks, copyrights, design & geographical indication which can be collectively used for protecting different aspects of an inventive work. Here we are considering only patents, trademarks & designs for the fibre reinforced plastics.

The *Patent* is an exclusive and legal monopoly right, which is granted for a 20 years limited period by a country to the owner of an invention to stop others from making, using, selling or importing an invention without the permission of the inventor. The patent is a property right and it can be given away, inherited, sold, licensed and can even be abandoned.

The novelty, an inventive steps & industrial applications are prerequisites feature of getting patent, which is primarily concerned with functional and technical aspects of products and processes and must fulfill specific conditions to be granted. Most patents are for incremental improvements in known technology evolution rather than revolution and are territorial in nature. Remember patent does not give rights outside of the country, as for example .an Indian patent does not give rights outside of India but we can claim patent rights outside of the country if we can go through patent cooperation treaty (PCT) mode.

The *Trademark* is any sign which can distinguish the goods and services of one trader from those of another. A sign includes words, logos, colours, slogans, three-dimensional shapes and sometimes sounds and gestures.

It is used as a marketing tool so that customers can recognise the product of a particular trader. To be registrable in India it must also be capable of being represented graphically, that is, in words and/or pictures.

The *Design* means only the features of shape, configuration, pattern or ornament or composition of lines or color or combination thereof applied to any article whether two dimensional or three dimensional or in both forms, by any industrial process or means, whether manual, mechanical or chemical, separate or combined, which in the finished article appeal to and are judged solely by the eye but does not include any mode or principle of construction or any thing

which is in substance a mere mechanical device and does not include any trade mark, as defined in clause (v) of sub-section of Section 2 of the Trade and Merchandise Marks Act, 1958, property mark or artistic works as defined under Section 2(c) of the Copyright Act, 1957.

## Patent Procedure

- **Application filing**

Any person, even if he or she is a minor, may apply for a patent either alone or jointly with any other person along with from 1 and fees Rs1, 000 & 4,000 for natural person and other than natural person respectively.

Such persons include the inventor, or his assignee or legal representative in the case of an ordinary application or, in the case of a priority application, the applicant in the convention country or his assignee or his legal representative. A corporate body cannot be named as an inventor.



Fig: Examples of Trademarks

## CASE STUDY

Foreigners and nationals not living in India need an address for service in India for this purpose. They may appoint a registered agent or representative whose address for service can be the address for service in India.

An application for patent must be filed at the patent office branch within whose territorial jurisdiction the applicant resides or has his principal place of business or domicile. A foreign applicant must file in the patent office branch having jurisdiction over the place where his address for service is located.

A priority application must be filed with a complete specification in the first instance but a non-priority application may be filed with either a provisional specification or a complete specification. Where a provisional specification is filed in the first instance, a complete specification must be filed within twelve months. Where two or more provisional specifications have been filed, the specifications may be cognated and all the subject matter may be incorporated into a single complete specification to be lodged within twelve months of the date of the earliest filed provisional specification.

- **Publication of Application**

The filed patent application is published after 18 months from the date of filing of the application or the date of priority whichever is earlier. The publication includes the particulars of the date of the application, application number, name and address of the applicant along with the abstract. The applications for patent are not open for public inspection before publication. The normal publication is not required any fees but early publication requires fees Rs. 2,500 & 10,000 for natural person & other than natural person respectively.

- **Examination of published Application**

No application for patent will be examined if no request is made by the applicant or by any other interested person in Form-18 with prescribed fee of Rs.2, 500/- or Rs.10, 000/- for natural person and other than natural person respectively, within a period of 48 months from the date of priority of the application or from the date of filing of the application, whichever is earlier. Where no request for examination of the application for patent has been filed within the prescribed period, the aforesaid application will be treated as withdrawn and, thereafter, application cannot be revived.

A First Examination Report (FER) stating the objections/requirements is communicated to the applicant or his agent according to the address for service ordinarily within six (06) months from the date of request for examination or date of publication whichever is later. Application or complete specification should be amended in order to meet the objections/requirements within a period of 12 months from the date of First Examination Report (FER). No further extension of time

- **Withdrawal of Patent Application**

The application for patent can be withdrawn at least 03 months before the first publication which will be 18 months from the date of filing or date of priority whichever is earlier. The application can also be withdrawn at any time before the grant of the patent.

The application withdrawn after the date of publication cannot be refiled as it is already laid open for public inspection. However, application withdrawn before the publication can be refiled provided it is not opened to public otherwise.

- **Opposition Proceedings to Grant of Patents**

Where an application for a patent has been published but a patent has not been granted, any person may, in writing represent by way of opposition to the controller against the grant of any Patent. The representation shall be filed at the appropriate office and shall include a statement and evidence, if any, in support of the representation and a request for hearing if so desired.

- **Grant of Patent**

When all the requirements of the FER are met or in case of opposition under section 25(1) of Indian patent acts 1970, if the opposition is decided in favour of the applicant, the patent is granted, after 6 months from the date of publication under section 11 A, the letter patent is issued, entry is made in the register of patents and it is notified in the patent Office, journal, thereafter opening the application, specification and other related documents for public inspection on payment of prescribed fee.

Any interested person can file notice of opposition (along with written statement and evidence, if any) anytime after the grant of patent but before the expiry of a period of one year from the date of publication of grant of a patent in the patent office journal.

- **Working of patents**

Every patentee and every licensee is required to furnish within three months from the end of the calendar year in which the patent is granted, a statement as to the extent to which the invention has been worked in India on a commercial scale in the preceding year. Non filing of this statement is a criminal offence.

- **Compulsory licenses**

After three years from the date of sealing of a patent, an interested party

may apply to the Controller for the grant of a compulsory license alleging that the reasonable requirements of the public with respect to the invention have not been satisfied or that the invention is not available at reasonable price. If the Controller is satisfied that a prima facie case for an applicant for compulsory license has been made out, he shall serve notice on the patentees who, if they so desire, may oppose the application for compulsory license.

• **Infringement**

An infringement suit may be instituted by a patentee or his exclusive licensee. Every ground for revocation is available as a defense and revocation can be counter claimed in

infringement proceedings. The Court may grant relief in respect of a valid claim or claims even though one or more other claims in the suit may be held to be invalid. Relief may include damages and costs as awarded by the court. A suit for injunction may be instituted and damages recovered in cases where there have been groundless threats. Any person may institute a suit for declaration as to non-infringement of a patent. Onus of proof of non-infringement lies with the defendant.

**Gradients for the Patent**

- Inventive step
- Novelty
- Industrial Application

According to Sec.2 (1) (J) of the Indian patent acts 1970, "Invention" means a new product or process involving an inventive step and capable of industrial application and should be new (novel) and not fall under section 3 and 4 of the Indian patent acts 1970

Inventive step involves technical advance as compared to the existing knowledge or have economic significance or both and makes the invention not obvious to a person skilled in the art and should be capable of being made or used in any kind of industry.

**Not Patentable Inventions in India**

There are some products and processes, which are not patentable in India as per Indian patent law as described herein.

a) The invention relating to atomic energy under section 4

b) The invention those which are not patentable under section 3

- An invention which is frivolous or which claims anything obvious contrary to well established natural laws (section 3(a)).
- An invention the primary or intended use or commercial exploitation of which could be contrary to public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment (section 3(b)).
- The mere discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or non-living substances occurring in nature (section 3(c)).
- The mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that

The patent grant procedure flow chart is given as below.

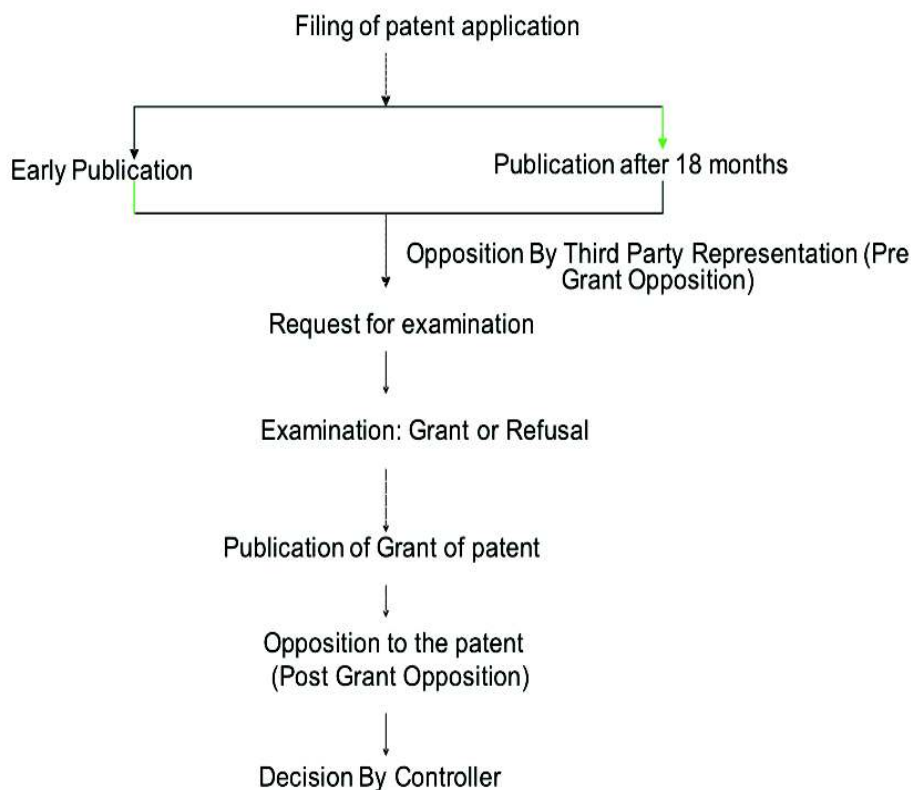


Fig: Flow chart of patent grant procedure

## CASE STUDY

substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant (section 3(d)).

- A substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substance (section 3(e)).
- The mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way (section 3(f)).
- A method of agriculture or horticulture (section 3(g)).
- Any process for the medicinal, surgical, curative, prophylactic diagnostic therapeutic or other treatment of human being or any process for a similar treatment of animals to render them free of disease or to increase their economic value or that of their products (section 3(h)).
- Plants and animals in whole or any part thereof other than microorganisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals (section 3(i)).
- A mathematical or business method or a computer programme per se or algorithms (section 3(j)).
- A literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions (section 3(k)).

- A mere scheme or rule or method of performing mental act or method of playing game (section 3(l)).
- A presentation of information (section 3(m)).
- Topography of integrated circuits (section 3(n)).
- An invention which in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components (section 3(o)).
- Traditional knowledge 3(p).

### Importance of IPR

Intellectual property rights (IPR) have become important in the technology field where R&D, novelty, an inventive step & industrial application is existed. Now a days face of trade environment is changing mainly due to global competition, high investments in research and development (R&D), need for rapid changes in technology, high innovation risks, variance in product cycle, production and marketing and

need for highly skilled human resources.. It is therefore quite obvious that the complexities of global trade would be on the increase as more and more variables are introduced leading to uncertainties. Many products and technologies are simultaneously marketed and utilized in many countries. With the opening up of trade in goods and services intellectual property rights (IPR) have become more susceptible to infringement leading to inadequate return to the creators of knowledge. Developers of such products and technologies would like to ensure R&D costs and other costs associated with introduction of new products in the market are recovered and enough profits are generated for investing in R&D to keep up the R&D efforts.

In India, FRP (composites) market is booming with a great pace, the raw materials suppliers and molders both are playing important role, but raw materials suppliers are in a better position than FRP molders or fabricators in the term of R&D & product development. The MNCs (raw materials suppliers) are filing patent for their products.

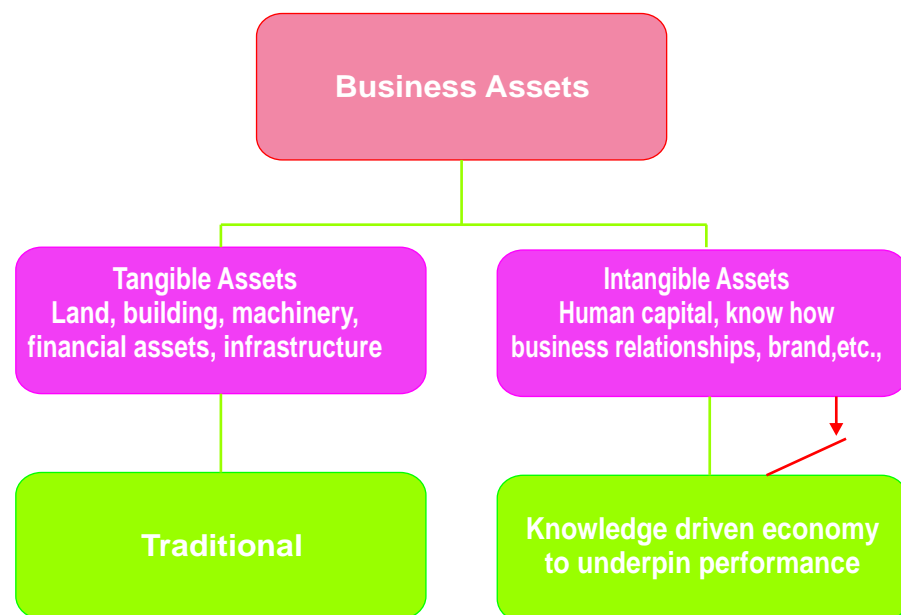


Fig: Importance of IPR

From the molders prospective, the wind blade makers are applying patent for their products.

The IPR has importance in the composites sector on the following aspects:

- To protect the ideas & invention
- The next economy of ideas
- Protects competitive advantage
- Build partnerships
- "Marketing" & "brand" value
- Negotiation tool
- Attract capital
- Premium pricing
- Monopoly –market advantage
- Entry into the big league
- Legitimate ownership
- Collaborations

Stay in business and keep others out

### Conclusion

The IPR will provide dynamic platform to the composites raw material suppliers and molders or fabricators in a competitive world. It will provide incentive to the individual for new creations as well as due recognition to the creators and inventors. No doubt it will ensure the availability of the genuine and original products.

Intellectual property right is the key factor for economic growth and advancement in the high technology sector. They are good for business, benefit the public at large and act as catalysts for technical progress. Globalization and the rapid proliferation of technology have elevated the importance of intellectual property protection for small and medium sized enterprises (SMEs). The intangible nature of intellectual



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property and the worldwide inconsistency of standard practices create challenges for composites businesses wishing to protect their inventions, brands, and business methods in foreign markets. The three most common vehicles for protecting intellectual property are patents, trademarks, and copyrights.

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# right material ensures right growth






### PRODUCTS

**Reinforcements**

- Unidirectional Fabric
- Bidirectional / Biaxial
- Multiaxial Fabric
- Slitch Mat
- Direct Roving
- Milled Fibre
- Chopped Strands
- Continuous Filament Mat
- 3D Glass Fabric
- Carbon Woven Textile
- Aramid Woven Textile
- Brails & Preforms

**Cores**

- PVC Structural Cores
- Polyester Core Mats

**Veils**

- Polyester Veil
- Designer Tissue
- E/E CR Glass
- Carbon/ Aramid

**Kesins**

- Gelcoat
- Polyester
- Vinyl Ester

### PARTNERS

- ▶ Saertex
- ▶ 3B Fibreglass
- ▶ Parabeam
- ▶ JB Martin
- ▶ Eurocarbon
- ▶ DIAB
- ▶ Spacertex
- ▶ PGI Nordlys
- ▶ FRP Accessories
- ▶ FS Manufacturing
- ▶ Fiberlex
- ▶ Kromatiks
- ▶ Mechenco Industries

### Tools & Consumables

- Lamb Wool Roller
- Mohair Roller
- Aluminum Roller
- Spray Equipment
- Laminate Gauge
- Resin/Gelcoat Mixer
- Cutter / Grinder
- Dispensers
- Infusion Media
- Polyester Pigment
- Epoxy Pigment
- Release Compound



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