

ISO 9000 QUALITY SYSTEM FOR RAW RUBBER AND RUBBER PRODUCTS INDUSTRIES

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Since 1987, the quality of Raw Rubber and Rubber products has been assessed by testing the product standards set by the British standards Organization (B.S. 5750). Instead now the European Economic Commission (EEC) Japan and USA have decided to go for a perfection of management at all stages of incoming raw materials to the final stage of packaging and storage of end-products which are ready for export. This management standardization procedure known as ISO 9000, require documentation and demonstration clearly specified at all levels of production in the form of a Quality Manual. This quality manual must clearly say what they do in the factory and exactly follow what is said in the quality manual without even slight deviation in the process. Both EEC, Japan and USA authorities are determined to enforce these laws before the end of 1994. Hence, we in Sri Lanka exporting nearly 50% of the raw rubber and most of the rubber products into these countries will be compelled to meet this requirement in order to continue business with them.

All the products that are allowed to be imported to EEC countries will have to have the quality symbol "CE" which is somewhat similar to SLSI mark given for local (Sri Lanka) products, without which nothing is allowed to be imported into these countries. This mark signifies that this product conforms to all the legislations applicable to that product. In order to get the CE mark, the producing factory must strictly conform to ISO 9000 in the future, most probably by the end of 1994. Although all our neighbouring countries such as India and Malaysia have already been on this exercise for the last 2-3 years, most of the Sri Lankan raw rubber and rubber producers are still not aware of the seriousness of this situation. But if they fail to complete this exercise by the said date and get ISO 9000 registration there is absolutely no way of sending their produce to these countries even if they had business with their clients in these countries over the last 50 years because, conformity to ISO 9000 is going to be a national requirement in EEC countries. It must also be emphasized here that it is mainly the obligation of the producer to produce his export commodity with the ISO 9000 requirement and hence they must insist that the Brokers and Shippers do the necessary changes in consultation with their consumers abroad in USA, EEC and in Japan to comply with these requirements. ISO 9000 does not apply only to product industries, but even service organizations such as banks,

hospitals and post offices should also confirm to ISO 9000 requirements before the above deadline.

The main reason as to why these standards were brought in was that in the normal product testing and certification scheme, that had been followed during the past, the consumers have faced many problems in areas which are not specified by the test scheme followed for grading and certification e.g. in the case of latex crepe rubber, the best quality IX grade could be made by :

- a) removing a fraction or without fractionation
- b) with or without using a bleaching agent and
- c) dried using a drying tower or a loft.

Although the products manufactured by any of the above methods are qualified to be graded as IX, on visual appearance, yet if the adhesive manufacturer used the unfractionated IX grade for making a solution by dissolving the rubber in a solvent, he will face lot of problems due to gel formation. Similarly, if a food and pharmaceutical or infant toy manufacturer uses the crepe IX grade made by using a Mercaptan for bleaching carotenoid pigments, there will be unanticipated health problems in the products manufactured out of it and hence the end-user will be adversely affected. However, if all the crepe manufactures use the same kind of processing practices starting from collection of latex to packaging of the end product, the above problem will not arise. Under ISO 9000, this requirement will be strictly adhered to.

Similarly, eventhough technically specified rubber (TSR) was introduced in late 60's with six specifications for grading the rubber, the consumers found that there are several problems affecting them at their finished product factories due to:

- a) The variability of the blend of the raw material used
- b) Variable mastication and Granulation operations
- c) Variable drying times etc.

As a result, differences have been observed in processability, rate of cure and even in tensile properties of the end-product that has been manufactured. Situation is the same even in the case of finished rubber products. Depending on the raw materials used and on the process of manufacture the quality of the end product vary and if ISO 9000 standards are followed there is absolutely no possibility of the occurrence of such differences because the blend used should be the same, processing operations and conditions used are the same packaging is the same and hence all the qualities of the end-product should also be the same.

However, the practice in our raw rubber and even in tea factories, is such that a skilled Tea/Rubber maker keeps all his production secrets in his mind and apply

them to the industry to produce a high quality end-product. (But if this Tea/Rubber maker retires or leaves the place, production of the factory specially with regard to quality will be adversely affected. In the new ISO 9000 scheme, this problem is completely done away with. Each operator carries out the procedure laid down in detail in the manual to achieve a uniform quality product. Quality manual is the documented system where policy requirements and the procedures are laid down in detail. Hence, even in the absence of the particular worker, the production can be continued without any interruption or deterioration in quality because the person next in line is also well trained in his field of activity like the main operator and hence he could follow the procedure laid down in the manual to achieve expected quality in the end product manufactured. This procedure is carried out at all stages of the production line. Hence, 100% of the end product produced will be of uniform and good quality and there is no need to carry out quality control tests and certification of the end product at the end as it is done now. In order to ascertain that the quality manual is updated and the implementation is perfect, there will be auditing carried out by an accredited national body which ultimately certify that the company meets the required standards of ISO 9000 before registration is given. In order to maintain this position throughout, the accredited company itself can perform internal auditing periodically. This is in addition, to the auditing carried out by the accreditation authority annually.

This will be a fairly difficult exercise for the rubber and rubber product industries to achieve in a short period of time. But for the exporters of products to EEC countries and USA there is no option. ISO 9000 requirement will be a strict mandatory requirement from the day it is officially implemented. Therefore, we all must try and get the ISO 9000 registration for all our factories before the end of this dead line. Though we are already late, with the assistance extended by the Rubber Research Institute, Export Development Board and the Sri Lanka Standards Institution it will not be that difficult to do this.

It is always better for the accreditation body of the country to be a national organization such as SLSI to work in collaboration with the other connected Government Organizations delegating the relevant aspects of the exercise to them. This will ensure a guaranteed certification scheme for industry unlike in the case of private registering bodies or foreign registering bodies which could sometimes isolate the industrialists when they are faced with a problem, while charging exorbitant amount of monies for registration and for auditing.

It is worth recording here that the EDB is considering a grant to be given to meet at least 50% of the cost involved in meeting a quality assuring system of ISO 9000 series of standards for our raw rubber and rubber product industries subjected to a maximum of Rs.450 000/-. Hence, we must start this important exercise as a matter of paramount importance before we are faced with a situation of rejection of

our exports by the above mentioned countries which are the richer countries in the World who can pay a fair price for our products. It must be emphasized here that as the sole supplier of latex crepe to the entire world, a product which is recommended for food and pharmaceutical applications, Sri Lanka will be more vulnerable than other raw rubber producers in the world to be rejected if we do not meet the ISO 9000 requirement. Latex crepe is a product produced purely for exports. Hence, the private management companies must take every effort as early as possible to get the registration for ISO 9000 for their 150 crepe factories in the country without which this valuable commodity will not have a market in the EEC or USA or in Japan in the future.