E-COMMERCE WITH SERVING
MANUFACTURING KNOW-HOW FOR GLASS FIBER

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1. Introduction
In conventional E-commerce system, only plain product information is supplied via Internet. However, if we can supply also technical support, it will become the next generation E-commerce. Glass fiber industry is limited society with less open material data. To promote the sales of supplementary raw material for glass fiber industry, we are developing an E-commerce system which can supply technical information and support design of glass fiber products. The system supports physical/chemical information, material design technique, and quality evaluation of manufacturing technique and products. These are going be connected to the CHN International Electronic Accounting and Distribution System.

2. Quality Control of Product
   In producing glass fiber, there needs lot of know-how. As an example, Fig.1 shows explanation of where and why occurring fluff in the process supplied by the system.

3. Process of Producing FW Roving
   Fig.2 shows the sizing method of filament winding roving which is the representative product of glass fiber roving. It shows how the fibers passing in emulsion including coupling, lubricant, surfactant, sizing binding materials etc are winded, and then dried up by heating, further melted by heating, and finally processed to roving.

4. Design/Combination Service of Supplementary Raw Material
   Network supports the necessary basic physical calculations as shown in Fig.3. Thus the network can supports all the design for production. Quality standard is very important in the E-commerce with customers from different areas/countries. Therefore, the network supplies detailed quality standard for the products. Fig.4 shows an example of quality standard of supplementary raw material for FW. Fig.5 shows an example of quality standard of glass fiber products for FW.

5. Other Functions
   The system supports also production process of fiber mat. They also include documents of production technique, QA, technical explanation, optimum production condition, production method in laboratory, and basis of quality of products. The system also supplies commercial information of products including compatibility of products, MSDS (Material Safety Data Sheet) for exports, specification of product which may be used for dealing maker guarantee
document, certificate of approval of ISO, product information, information of packing shape, and information of material makers.

6. Conclusion
Thus, by supplying and supporting combined various technical, commercial, and dealing information/service on the Internet, we can enhance sales by E-commerce. However, smart linkage between each information is always a problem and remained as to be developed.
Fig.3: Design support of supplementary raw material

![Image of Fig.3]

Fig.4: Quality standard of supplementary raw material for FW

![Image of Fig.4]

Fig.5: Quality standard of glass fiber products for FW

![Image of Fig.5]