

## 防油紙 (二)：製程操作參數及製造實務

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### Greaseproof Paper II. Process Parameters and Production Technologies

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#### Summary

The means of application for fluorinated greaseproof agents in the production of greaseproof paper include internal addition and surface coating methods. The process parameters that must be taken into consideration include water quality, pH, alum, coating medium (starch/PVA), waterproof sizing agents, composition of the pulp, fillers and coating colors, foaming control additives, sodium hypochlorite, and drying conditions etc. When fluorinated greaseproof agents are applied internally, their effectiveness showed absolute positive correlation with retention of the fiber. Most of the greaseproof agents used domestically belong to the anionic type, thus strong cationic retention aids must also be added to enmesh the anionic fiber and fluorinated greaseproof agents and forming bonds to facilitate retention in the paper. The degree of greaseproofness is often determined using oil kit test, and Cobb test. In the production of molded paper products, the addition of chemicals is often different from the reverse addition sequence often used in the traditional papermaking, and thus providing better greaseproof effectiveness. The molded paper products are often tested using the Mazola oil test and hot water test to assess their oil and water absorption respectively. When fluorinated greaseproof agents are used in surface coating, the base sheet properties (pulp composition, sizing degree, air permeability, calendaring etc.) and the coating color (binders: starch/PVA, fluorinated greaseproof agents, pH, and hardness of the water etc.) must be evaluated. In practice, broke of the fluorinated greaseproof paper won't cause recycling problems, the only concern is the use of wet-strength agents. Thus, higher pH and temperature conditions are often required, If necessary, using sodium hypochlorite under a neutral or alkaline condition could shorten the repulping time.

**【Keywords】**: Greaseproof Papers, Paper Molding, Fluorochemicals, Mechanical Treatment, Chemical Treatment, Internal Treatment, External Treatment

#### 一、前言

防油阻隔的主要特性為撥除油滴(oil repellency)及阻絕油脂(oil resistance)，但是在應用時仍需將抗水程度、透氣度、濕強度及濕不透明度等性質亦列入考

慮，因此國內生產防油紙時，有時必須兼顧防油阻隔及防水阻隔。國內的薄磅防油紙(例如：基重 45 gsm)月平均需求量約在 800-1000 噸，其中半數以上從國外進口，主要應用在西式及中式的速食餐飲的包裝容

器，一般的熟食包裝，食品類的容器包裝、憑證用紙、標籤紙等方面。紙板類防油隔離主要以熱蠟處理為主，防油紙板則需依靠進口供應。