

Improvement of Air Permeability of SWP™ Pulp Mixed Paper

SWP™-pulp mixed paper after calendar treatment has excellent air permeability (i.e. higher air resistance) compared with 100% pulp paper after calendar treatment. Expected application of coating paper with high performance is filter fields using pore size controlled paper, etc.

1. PAPERMAKING PROCEDURE and EVALUATION METHOD

(1) Papermaking procedure of SWP™-pulp mixed paper

Ratio of materials : NBKP / SWP = 100 / 0, 70 / 30, 50 / 50

CSF of NBKP : 430ml

SWP Grade : E620 (CSF: 340ml, mp: 135)

E400 (CSF: 580ml, mp : 135)

E790 (CSF: 680ml, mp : 135)

Basis Weight : 80g/m²

Drying Condition : 110 × 2min. (Rotary Dryer)

Calendar Condition : 30 , 80 , x 50kg/cm, 1 min.

(2) Evaluation Method of the paper properties

Smoothness : J. TAPPI No.5

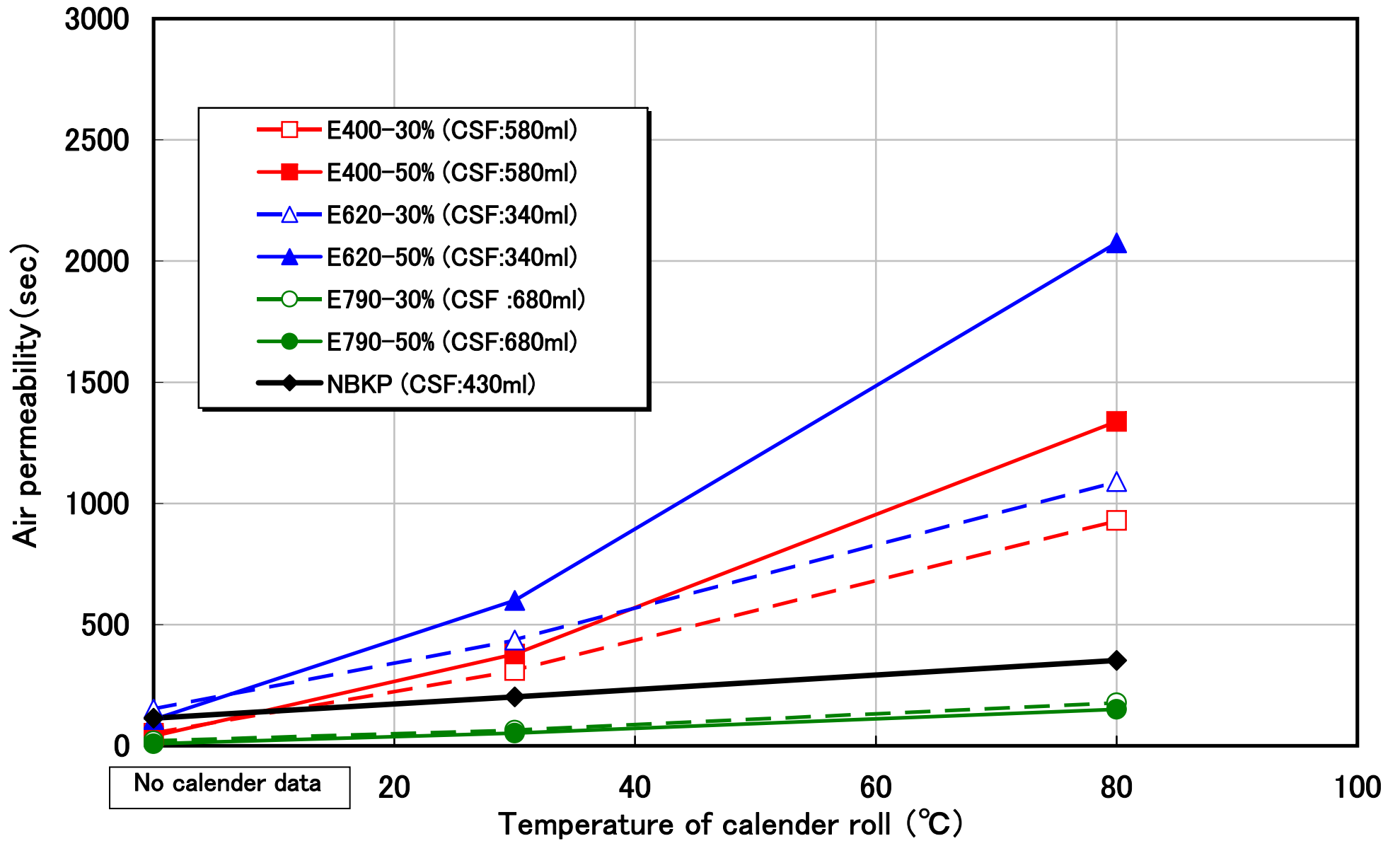
(Determination equipment of smoothness by a pressurizing method)

2. AIR PERMEABILITY of SWP™- PULPMIXED PAPER

- SWP™-pulp mixed paper after calendar treatment has excellent air permeability compared with 100% pulp paper after calendar treatment. When SWP™ ratio is increased, paper becomes finer. (Refer to Graph 1)
- By using lower CSF type of SWP™ it is easy to make finer paper with high air resistance.
- When using E620, mixed paper after calendar treatment has small pore size (Refer to Document SWP-01), and therefore excellent air permeability. (Refer to Graph 1)

To the best of our knowledge, the information contained herein is accurate.

However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Graph1. Air permeability of SWPTM-NBKP mixed paper