

Precondition for high-speed splice and splice reliability:

The maximum splice speed indicated for the BHS splicer might be limited by paper grammage and paper quality as well as working width and roll diameter (weight).

Due to the technical design of the subsequent machines, e.g. corrugating roll contact pressure, pulling force of Double Facer etc. it might become necessary to reduce the maximum splice speed in order to avoid as far as possible negative impacts on the production, e.g. delamination.

Splicer reliability depends on:

Technical factors

- required range of braking torque 8 – 960 Nm per brake, regarding roll diameter and production speed (operating constantly on both sides – operator/ drive side)
- reel stand brakes: RE brakes, model CX.250 HP, or comparable equivalents
- range of web tension: 120 – 500 N/m (tension per paper width)

Machine factors

- perfect condition of the machine
- correct preparation of splice
- maintenance and cleaning acc. to the operating instructions, operating errors excepted
- effect of peripheral units excepted
- paper travel variations excepted

Paper factors

- the common paper grades used acc. to VDW, FEFCO and TAPPI recommendations for liner and medium must have the following properties in respect to their runability:
 - o paper moisture acc. to the nominal value of the respective paper grade
 - o optimum tensile strength of the paper: minimum 6 N/mm
 - o clean, well cut front edges without damage of the front sides of the tape
 - o uniform and flat, tightly wound paper rolls over the total roll diameter
 - o unwinding of the paper webs from the roll must be even and smooth across the working width.
- the ends of the paper reels must be in good condition
- the core of the roll must not show damages at its ends
- no creases, breaks, tears, paper flaws or bonding spots in the paper web
- no damaged reels or paper reels with excessive winding tension variations
- no eccentrically and non-uniformly wound paper rolls
- no extremely bouncing paper rolls
- in case of untrue running (ovality) of the reels, the speed has to be adjusted acc. to the concentricity error
- as for the papers with a high percentage of foreign particles the preparation of the splice should only take place shortly before the splice to avoid release of the bonding area (prepared splice tape will be contaminated with dust)
- use of 60 mm splicing tape at ambient temperature acc. to operating instruction (e.g. [TESA 50607](#), or comparable equivalents)
- the cores must have such a stability that they do not swing in the middle shortly before the core is completely unwound
- the core quality must be designed for high speeds of the corrugator. The core must be manufactured in one piece across the entire working width and must be stable under axial loading (acc. to DIN ISO 11093-1):
 - o inner \varnothing 100 mm \pm 0.5 mm
 - o outer \varnothing 120 mm \pm 0.5 mm
 - o moisture 7 – 9 %
 - o straight cores
 - o length to paper width + 0 mm/ - 3 mm