



英语翻译技巧(24)

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4.3 UNSUPPORTED SHEETING

Two-, three-, or four-roll calenders are used for the production of sheeting containing no textile fabric reinforcement, different configurations of the rolls being possible^①.

For precision gauge control, a sheet is produced in a first nip, and this is then fed round a roll to a second nip^②. The second nip gives either less blistering or a thicker sheet for the same amount of blistering. The quality of sheeting is more dependent upon the quality of the feed than on any factor other than the temperature of the calender rolls^③. Occasionally, three nips are used for calendering, i. e. a four-roll calender is used, but one or two nips are more common. The increasing number of nips ensures an increasing quality of feed to the following nip, but it is rare to have more than two nips, the second producing the gauge, whilst the first meters a correct feed of compound to the second nip^④. Cross-axis or roll bending is needed on each nip if optimisation of gauge control is needed.

The compound produced may be calendered into a liner, or on to a belt (allowing some or no relaxation)^⑤, or it can be taken on to cooling drums which set the compound prior to wrapping it in a liner. Most compounds are interleaved with a liner because their natural tack makes them inseparable if two wraps of compound touch each other. Sometimes they are powder dusted

or are treated with a liquid antitack.

In producing a good-quality calendered sheet, the running speed is often a critical factor. Generally, the slower the running speed, the better the sheeting quality; the ultimate compromise usually becomes one of plant limitations or economics^⑥.

Whilst some compounds stick to the hotter roll and others to the cooler, there are particular compounds which will not adhere preferentially to either. Under these conditions, a change in the relative roll speeds may achieve what a change in temperature fails to achieve. For example, if there is a friction ratio of say 1.05 : 1, the compound will adhere to one roll.

In addition to its use for producing unsupported sheeting, the calender is used for coating textile fabrics, and these processes are described in Sections 5.4 and 5.5.

生 词

unsupported sheeting	无衬底胶片
textile fabric	
reinforcement	织物增强材料
configuration	构型
gauge	厚度
blistering	起泡
meter	定量供给
cross-axis	交叉轴装置
roll-bending	辊筒抗弯装置
set	定形
relaxation	松弛

wrap	卷,缠
interleave	隔离,隔开
liner	垫布
compromise	折衷,兼顾
powder dusted	掸粉,打粉
stick	粘
adhere	粘附,粘合
coat	涂胶,覆胶

译 文

两辊、3 辊或 4 辊压延机都可用于生产无织物增强的胶片,辊筒可有各种不同的构型^①。

为了精确控制厚度,在第一辊隙形成的胶片,绕经一个辊筒喂入第二辊隙^②。第二辊隙减少了气泡量,或使较厚胶片的气泡量与薄胶片相同。除了压延机辊温以外,胶片质量主要取决于喂料的质量^③。偶尔也用 3 辊隙,即 4 辊筒压延机进行压延,但较常用的是一辊隙或两辊隙。增加辊隙数,可保证提高下一辊隙喂料的质量,但采用两个以上辊隙亦很罕见。第一辊隙精确地按规定量向第二辊隙供胶,第二辊隙形成规定厚度的胶片^④。如果要最精确地控制厚度,则每个辊隙都需要用交叉轴或辊筒抗弯装置。

压延胶片可直接卷进垫布,或放到输送带上(允许部分松弛或不许松弛)^⑤,也可将胶片放到冷却鼓上定形后再卷进垫布中。大多数胶片都用垫布隔开,因为其固有的粘性将使两圈胶片互相接触时分不开。有时往胶片上打粉或用液体防粘剂处理。

生产优质压延胶片,转速往往是关键因素。通常转速愈低,胶片质量就愈高;而最终折衷方案一般要兼顾到设备的能力或经济性^⑥。

有些胶料粘热辊,有些胶料粘冷辊,但也有一些特殊的胶料对这两种辊筒都不爱粘。在这种情况下,调节相对辊速可获得调节温度达不到的效果。例如,如果辊筒速比为

1.05 : 1,则胶料将粘到一个辊筒上。除生产无衬层胶片外,压延机还用于织物贴胶,其方法将于 5.4 和 5.5 中叙述。

注:①“containing no textile fabric reinforcement”为现在分词短语作后置定语,修饰“sheeting”;“different configuration……possible”为分词独立结构。

②“for precision gauge control”直译为“为了精确的厚度控制”,不如转译为“为了精确控制厚度”;并列句中的“this”按逻辑判断为第一辊隙所产生的胶片。

③“other than the temperature of the calender rolls”是“any factors”的定语。

④“the second producing……to the second nip”为分词独立结构,用以补充说明“two nips”;“meters”此处为动词,作“定量供给”解,从语法上看改为分词“metering”更好解释。

⑤“The compound produced may be calendered……to a belt”,可以直接译为“压延胶片可直接卷进垫布……”代替“生产的胶料压延进垫布……”。

⑥此句中的“one”不是数字,而是代词,代替“compromise”。

英译汉常见错误实例

There is a partial back-shrinking, due to cooling, of the swelling, which takes place at the exit from the die-bar.

误:口型板出口处的表面外凸由于冷却发生局部背部收缩。

正:口型板出口处发生的(挤出胎面)膨胀由于冷却而产生部分回缩。

注:①“swelling”是指“挤出胎面的口型膨胀”,不是“口型出口处的外凸部位”。

②“back-shrinking”是指“膨胀后的回缩”,而不是“背部收缩”。