IN THE HIGH COURT OF THE REPUBLIC OF SINGAPORE

[1996] SGHC 90

Suit 525/1991

Between

Sunshine Engineering Service Pte Ltd

… Plaintiff

And

Chemco Private Limited

… Defendant

GROUNDS OF DECISION

Version No 1: 29 Oct 2026 (23:45 hrs)

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Sunshine Engineering Service Pte Ltd v Chemco Private Limited

[1996] SGHC 90

Suit 525/1991
G P Selvam J
30 April 1996

1 **Judgment:**

2 Cur adv vult

JUDGMENT

3 This claim arose out of a contract made in October 1990 for the sale to the plaintiffs by the defendants of a Japanese product known as Sumikon VM-1847D-7 ("the product") at a purchase price of US$178,500 to be delivered in Singapore in three shipments ("the contract"). The product was polyvinylchloride (PVC) for the manufacture of tubes to be used in assembling integrated circuits (IC).

4 The plaintiffs say that the sale was by sample as well as by description. The sample according to them was furnished to them on or about 4 October 1990. The description they say was that the product would have a surface resistivity of 1.2 x 10000 ohm.

5 The defendants were not the manufacturers of the product. It was produced by Sumitomo Bakelite Co Ltd of Japan. The defendants secured the product from a Japanese company called Chugai Boyeki Co Ltd of Japan. In fact the plaintiffs were required to establish letters of credit directly to Chugai Boyeki Co Ltd. Although the defendants appear as the contracting parties, in fact they were only brokers who contracted as principals. It was therefore no surprise that the Japanese manufacturers appeared before me to defend their product.

6 In November and December 1990, three containers of the product were delivered to the plaintiffs. The plaintiffs alleged that the consignments supplied did not correspond with the contractual quality in that the surface resistivity for the product was much higher than 1.2 x 10000 ohm. It was also asserted that the sample supplied was used to produce tubes and found to have an acceptable surface resistivity but the consignments delivered had a surface resistivity of much higher than 1.2 x 10000 ohm. In the circumstances, said the plaintiffs, the product had to be modified to reduce its surface resistivity to an acceptable range.

7 The pleaded damages of the plaintiffs was that they incurred the following expenses in respect of each container load of the product.

8 Labour charges $28,554.73 Cost of Modifier $36,975.00 Rental of machinery $ 3,825.00 Rental of factory $ 750.00 Total per container load $70,104.73

9 Total improvement cost for three container loads = $210,314.19.

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10 Accordingly they claimed the sum of $210,314.19 and interest at the rate of 8% from the date of writ of summons to the date of judgment.

11 The defendants' case

12 The defendants say that they procured the product from Sumitomo Bakelite Co Ltd of Japan through Chugai Boyeki Co Ltd and sold it to the plaintiffs on the basis of Technical Information data of PVC compound SUMIKON VM-1-8400-7 provided by Sumitomo Bakelite Co Ltd with the important qualifying words the information was only true and correct to the best knowledge of their knowledge but not guaranteed. The defendants admitted having delivered a sample to the plaintiffs but denied that there was a sale by sample. They went on to state that the product delivered to the plaintiffs corresponded with the data provided in the technical information, the accuracy of which in any event was not guaranteed or warranted by the defendants.

13 In essence, therefore, the defendants' case was one of denial of the plaintiffs' case and placing great importance on the qualifying words in the technical information. As to damages the defendants said that the plaintiffs modification of the product was without their consent or knowledge. In addition the defendants contended that the plaintiffs had never attempted to mitigate their losses (if any). Instead, said the defendants, the plaintiffs wilfully proceeded to consume this product to the detriment of the defendants. Hence the defendants denied the plaintiffs claim for expenses of $210,314.19.

14 Implied conditions of sale by description and sample

15 The consequences of characterising a contract as a sale by description or sample are set out in the English Sale of Goods Act 1979. Section 13 (1) of

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the Act provides that where there is a contract for the sale of goods by description, there is an implied condition that the goods will correspond with the description .

16 Section 15 (2) provides that : In the case of a contract for sale by sample, there is an implied condition -

17 (a) that the bulk will correspondent with the sample in quality;

18 (b) that the buyer will have a reasonable opportunity of comparing the bulk with the sample;

19 (c) that the goods will be free from any defect, rendering them unmerchantable, which would not be apparent on reasonable examination of the sample.

20 The word unmerchantable means that the goods must be fit for the purpose or purposes for which goods of that kind are commonly bought as it is reasonable to expect having regard to any description applied to them, the price (if relevant) and all the other relevant circumstances. - See s 14 (6) of the Act.

21 Section 13 (2) provides that If the sale is by sample as well as by description it is not sufficient that the bulk of the goods corresponds the sample if the goods do not also correspond with the description .

22 Purpose of product purchased

23 For a proper comprehension of this case it is first necessary to comprehend certain electronic engineering terms. A material is said to be conductive if it offers a low resistance to the passage of an electric current

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(conductor). If it offers high resistance it is said to be insulative (insulator). Conductivity, therefore, is the reverse of resistivity. The higher the resistivity the lower the conductivity. The standard unit in which resistivity is measured is ohms metre. Surface resistivity is measured in ohms square. A material is said to be dissipative if it offers more resistance than a conductive material but less than an insulator and it is commonly called a semiconductor having a conductivity between good conductors (e.g. metals) and insulators or non-conductors (e.g. glass and porcelain). The resistivity of good conductors will vary from material to material depending on how much free electrodes the material contains. The conductivity of a material can be improved in many ways. The addition of a material rich in free electrodes such as carbon is one way of the improving the conductivity of a conductive compound like PVC compound. The commercial range of the surface resistivity in ohms metre square of different kinds of materials are as follows :

24 Conductors : less than 105 Semiconductors: 105-9 Anti-static materials: 109-14 Insulators: more than 1014

25 In the present case it is not in dispute that the material the plaintiffs purchased (PVC compound Sumikon) was intended to be a conductive material to be used for the manufacture of tubes in ICs. As such its resistivity must be below 105. If it is 105 or more it cannot be considered a conductive material. Its conductivity may be improved by the addition of carbons which is rich in free electrodes. The plaintiffs' principal witness said in evidence :

26 When we buy conductive compound, we want the tube to be within 105. The tube he referred to was the finished product the plaintiffs intended to manufacture from the material they agreed to purchase.

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27 Sale by description

28 In this case there was clearly a sale by description. One description which was common ground was that the material sold was intended to be conductive material. This means that its surface resistivity must be less than 105 ohms square. The technical information provided by the defendants said that the material supplied would have a surface resistivity of 1.2 x 104. But the technical information carried the following limiting words : All figures listed above are true and correct to the best knowledge of ours but not guaranteed ones . The defendants contended that these words meant that they did not have to supply material with a surface resistivity of 1.2 x 104 ohms square. They even said that it was a sale on as is basis. I must reject that contention. It was not on an as is basis because there was no term to that effect. An as is sale applies only to a product that is in existence so that the product is bought and sold in the condition in which it exists and not what it will be in the future. The condition and specifications of the product, therefore, are fixed and cannot be varied. If an as is sale applies to future goods the seller can supply inferior goods if he so chooses. This the law cannot allow. Thirdly, the effect of the qualifying clause in the technical information was not to nullify the values given but to qualify them. It meant that the values were not precise but within an accepted range of a conductive material.

29 To be within the accepted range it should be below 105 ohms square. I have already quoted the words of the plaintiffs' principal witness and it is worth repeating them: When we buy conductive compound we want the tube to be within 105. That indeed was the concern of the plaintiffs. The material descriptive term in this case was that it must be a conductive material with a surface resistivity of less than 105 ohms square.

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30 The plaintiffs produced sample tubes and measured the resistivity. It was 1.5 x 104. But Singapore Institute of Standard and Industrial Research (SISIR) found it to vary from 4.294 x 104 to 8.588 x 104. The latter is fairly close to 105. SISIR's average was 7.5145 x 104. The plaintiffs therefore must accept a resistivity in the region of 8.588 x 104.

31 Sale by sample

32 I consider the plaintiffs case based on sale by sample as a straight forward matter.

33 There was in this case clearly a sale by sample. There was no express term in the contract to the effect that it was a sale by sample. But such a term must necessarily be implied because 50 kg sample was promised and a sample was sent before the contract was concluded. The sample was accompanied by a label with the words sample chit making it clear that the defendants understood that they sent a sample to indicate to the plaintiffs the quality of the product they were offering.

34 The plaintiffs before entering into the contract measured the surface resistivity of the sample in the actual condition in which it was received. Later they subjected the sample to production of tubes, the purpose for which the product was required. It was only after the tube met the desired parameter that the plaintiffs placed their order for the product. In fact the plaintiffs furnished the defendants with a sample tube before they placed their orders. The evidence therefore is strong and clear that a sale by sample was intended by both parties.

35 Non-compliance

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36 The next question, therefore, is whether the product supplied corresponded with the sample or description in quality. As the quality of the sample was determined by actual production of sample tubes, the proper method of determining the quality of the bulk was, of course, by ASTM method which includes the test of tubes.

37 The plaintiffs did this. They found that the tubes did not correspond with the sample. So they complained. The defendants and their suppliers refused to accept what the plaintiffs said. Fresh tubes were extruded under the supervision and advice of the defendants representatives and the surface resistivity of the extruded tubes was measured. The sample tubes made from the actual product supplied failed to match the quality of tubes made from the sample. It was too excessive and not in accordance with the sample or description.

38 In addition to the above, part of the sample was sent to Singapore Institute of Scientific Information and Research ("SISIR"). This time no tube was produced. They found that the sample possessed a surface resistivity within the conductive range desired by the plaintiffs. On the other hand samples from the actual product supplied were found by SISIR to materially exceed the surface resistivity of the sample. There was no reason to reject the test of SISIR. For the purpose of determining the quality of the sample it does not matter which test method was employed provided the same method was used in respect of the product. This was what was done by the plaintiffs and SISIR. There is, therefore, double proof that the defendants were in breach of the implied term that the sale must correspond with the sample in quality as well as the description.

39 Extent of breach

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40 The next question is how much of the product supplied was not within acceptable range of surface resistivity - that is how much of it had a surface resistivity higher than that of a conductive compound.

41 The defendants supplied three container loads of the product. According to the plaintiffs the first container load had a surface resistivity of 5.44 x 105 - that is well above the acceptable limit. The defendants' own measurement did not prove the material to be within the acceptable limit. I therefore hold that the defendants were in breach in the supply of the first container load.

42 As regards the second container there was no proof that the material was not within the acceptable limit. The plaintiffs merely did a pallet test. There was no test by SISIR.

43 Regarding the third container load the plaintiffs did a test only on the pallets which is not an acceptable or proper survey. But there was a test done by SISIR which showed that the resistivity exceeded the contractual parameter. There was also a test done by the defendants which gave the average resistivity of 14.51x 105 which was outside the contract number. Accordingly I hold that there was a breach in respect of the third container load.

44 The defendants sought to prove that the product was within the contract specification. The evidence they sought to adduce, however, was inadmissible in that it was within the hearsay rule and so I have rejected it.

45 The defendants contended that the measuring of the surface resistivity was not in accordance with the ASTM method. But ASTM booklet itself says that it can be measured from tubes. Additionally the defendants themselves attended the plaintiffs' factory and tubes were produced under the supervision

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without any objection. The defendants themselves took measurements and they proved to be unsatisfactory. Accordingly they cannot be heard to complain. SISIR modified the ASTM test method to suit this material and in my view it does not invalidate the test.

46 Damages

47 As to the calculation of damages the plaintiffs said that they imported additive material to improve the quality to the desired level but refused to produce the evidence on the ground that it was confidential. There was, furthermore, no evidence to indicate how much of the additive was required to improve the quality of the product to the desired level.

48 Nonetheless there was evidence to establish the market price of equivalent defective product which the plaintiffs purchased from Malaysia. This was S$1.90 per kg - See PB/67; NE p 136 and NE p 262. The price difference for the two container loads was : (S$6.125 - $1.90) x 34,000 = $143,650.

49 However, their admitted costs for improving three container loads was $132,339.45. In respect of the two containers in respect of which breach was provided this works out to $88,226.30. I therefore award the lower of the two. Accordingly there will be judgment for the plaintiffs for $88,226.30.

50 I shall hear counsel on interest and costs on a date to be fixed.

51 Dated this 30th day of April 1996.

52 G P SELVAM
JUDGE

Solicitors: Shook Lin & Bok H T Sam & Company

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G P Selvam J

Ng Yuen for the plaintiffs
H T Sam for the defendants

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