FAX TRANSMISSION

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To: Dan Whitener-Trim-lok inc. **Date:** 11/10/99

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From: David Silver-Gentex

Subject: Evaluation Testing of the 100 B3 TPRVO X 1/8

Ref: Conversation 11/9/99 afternoon

I have attached the results of the evaluation testing. The testing performed is not formal. The trim passed the evaluation testing. Currently, we are trying to determine if we can use the 100 series instead of the 75 series and 62 series.

Some Questions:

1. What is the shelf life of the product?
2. Is the product an Elexar Thermoplastic rubber grade 8712 and 8730 or is that an additive?
3. What is the outer coating material? Is it TPRVO? And if so what is TPRVO?
4. What is the internal clip material?
5. What is the temperature range?
6. Is there a flammability code of compliance for this product like FMVSS 302?

The answers to the above questions will help me create the internal documents required for procuring the trim

RECEIVED

NOV 10 1999

11/9/99
Test # 1N

Trim Heat Soak Test
Data Sheet

Equipment:
Thelco-Laboratory Oven
Manufactured by Precision Scientific Inc.
S/N 697090523

Test Requirement per NFPA 1971: 260 °C (500 °F) for 5 min
The Oven can only do 250 °C (482 °F)

Items to be tested:
A-Visor Trim GW9454, Trim Lok # 62B-3X 1/16 Regular-Trim, 5" long.
B- Cover Trim GW9456, Trim Lok # 750 B-2X 1/16 Regular-Trim, 5" long.
C- New Trim, Trim Lok # 100B3TPR VOX 1/8, Non-glossy, High heat and flame.

Time to get up to 250 °C with trim in oven:

	Time	Temp, °C
Start	4:06 pm	243
End	4:11 pm	250

Item		Time		Temp, °C	Comments
A	Start	4:11pm		250	
	End	4:16pm	Total = 5 mins	251	Melted
B	Start	4:11pm		250	
	End	4:16pm	Total = 5 mins	251	Melted
C	Start	4:11pm		250	
	End	4:16pm	Total = 5 mins	251	No signs of melting. Item passed

Evaluation Testing
Test Performed by D.Silver

11/10/99
Test # 1N-Flame

Trim Flame Test

Test Requirements per NFPA 1971: Standard Bunsen. Bunsen burner shall be fueled by bottled methane gas, lab grade or better, of 3.72 x 107 J/m^3, +/-1.8 x 106 j/m^3 (1000 Btu/ ft^3 +/-50 btu/ft^3). Gas to be furnish to burner under a pressure of .0020 kg/cm^2 +.0004/.0.0 kg /cm^2 (0.5 psi, +0.1/-0.0 psi at the burner. Flame length of 2.54 to 3.8 cm (1.0 to 1.5 in). The flame shall be place on the test sample for 15 seconds, +1/-0 seconds. There shall be no afterflame or afterglow beyond 5 seconds.

Modified Test Set- Up: Create a flame using Propane gas. Create an equivalent flame temperature to the Intertek Testing Services flame. Intertek Testing Services flame meets NFPA 1971 requirements per Safety Equipment Institute. The temperature range is 1400 °F to 1640 °F for the flame. There is no temperature requirement for flame in NFPA 1971.

Equipment: FAS flame test set-up
1. Bernzomatic- Trigger Start 6000, torch
2. Propane Cylinder
3. Adjustable fuel gauge
4. Fluke-Thermometer, Item # 762708, S/N# 73890008.
5. K-type thermocouple, S/N #3915

Items to be tested
A- Cover Trim GW9456, Trim Lok # 750 B 2X 1/16 Regular-Trim Placed on composite coupons.
B New Trim, Trim Lok # 100B3TPR VOX 1/8, Non-glossy, High heat and flame Placed on composite coupons.

TRIM-LOK PART NUMBER REVISION TO 100B3TPR FR

Item	Flame Temp, °F	Flame Test Duration, Min/Sec	Duration of After Flame, Min/Sec	Comments
A1	1610 +/- 30 °F	15	Went out under 5 sec	Went out as soon as flame was removed
A2	1610 +/- 30 °F	15	Trim went out under 5 secs	The coupon keeps burning until it was put out, 9 sec after flame
B1	1610 +/- 30 °F	15	Went out under 5 sec	No burning seen a little melting, coupon keep burn until put out
B2	1610 +/- 30 °F	15	Went out under 5 sec	Same as B1

Evaluation Testing
Test Performed by D Silver