

TECHNICAL SERVICE TEST REPORT

REQUEST: TS 4795	PAGE: 1 of 2
SALES:	DATE: 11/11/15
CUSTOMER: Getzner	FB DUE:

APPLICATION:	Foam Bonding Study
TEST SAMPLES:	Customer-supplied Sylodyn GC-Series Closed Cell Urethane foams identified as Sylodyn GC-20, Sylodyn GC-23, and Sylodyn GC-37 (2-digit number refers to Hardness Shore A)
TESTING REQUESTED:	Bonding Study

SETUP AND TESTING

Adhesive systems (see charts below) were backed with 1 mil PET film (liner-side for double-coated products) and trimmed to 1 inch width. Samples were laminated to customer-supplied Closed Cell Urethane foams. 2 sets laminated, one at Room Temperature and one using Heat Assist with 50% Compression. Heat Assist: Acrylic products or products with acrylic on exposed-side were laminated at 210°F. Rubber-based products laminated at 150°F. Chart indicates lamination temperature using color code.

Sample was subjectively evaluated after 4 Days @ Room Temperature. Same sample sets were placed in 150°F oven for 5 days and returned to Room Temperature for 3 Days and subjectively re-evaluated. Table indicates best bond achievable and whether heat assist was necessary or beneficial.

RESULTS

SUBJECTIVE BONDING STUDY; EXPOSED-SIDE ADHESIVE TO FOAM

EXP ADH/LINER ADH:	ACRYLIC/ACRYLIC										ACRYLIC/RUBBER			RUBBER/RUBBER			
FOAM ↕ ADHESIVE ⇨	254M	256M	353M	488M	653	654M	655	7334	7832	7834	4377M	4380M	5944M	3175M	2237M	4787M	5008B
Sylodyn GC-20	VG	VG	G-VG	VG	VG	VG	VG-E	G	G-VG	VG	G	VG	F-G	G-VG	G-VG	VG	VG
Sylodyn GC-23	G	G	G	P-F	G-VG	G-VG	G-VG	F	F	G	G	G	F	VG	VG	F-G	G
Sylodyn GC-37	G ①	G ①	G ①	F	F-G	F-G	F-G	G ①	VG ①	G-VG ①	G ①	G-VG ①	NR	NR	NR	G	F

① HEAT ASSIST AT 210°F NECESSARY TO ACHIEVE BOND NOTED

Qualification testing should be conducted that replicates application forces and conditions. Foam bonds should not be evaluated immediately after laminating as results are not reliable predictors of ultimate bond to be achieved.

FOR INTERNAL USE ONLY

Adchem Technical Service Test Report for Internal Use Only. Any data, information, or recommendations provided are based upon limited testing and experience and is not to be used for specification purposes. Customer is responsible for determining whether a product is suitable for their particular application and process.

SUBJECTIVE RATING SYSTEM

Adhesive bonds are subjectively evaluated and rated based on strength of adhesive bond to material being tested and/or degree of destruction to surface of material being tested.

E = EXCELLENT – Complete destructive bond and/or substantial force required to remove adhesive from material.

VG = VERY GOOD – Substantial Destruction to surface of material and/or significant force required to remove adhesive from material.

G = GOOD – Partially destructive bond and/or moderate force required to remove adhesive from material.

F = FAIR – Non-destructive bond to material but moderate force required to remove adhesive.

NR = NOT RECOMMENDED – No bond development to foam. Adhesive not recommended.

FOR INTERNAL USE ONLY

Adchem Technical Service Test Report for Internal Use Only. Any data, information, or recommendations provided are based upon limited testing and experience and is not to be used for specification purposes. Customer is responsible for determining whether a product is suitable for their particular application and process.