

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

ADHESIVE, POLYAMIDE, HOT APPLIED 170 - 180 °C

WSK-M2G270-B

1. SCOPE

The material defined by this specification is a hot melt adhesive with high filler content, based on polyamide.

2. APPLICATION

This specification was originally released for material used to bond hardboard parts of the ventilation air duct.

3. REQUIREMENTS

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 COLOR

Black, or as specified on Engineering Drawing

3.3 SOLIDS, min (FLTM BV 150-10)

99 %

3.4 ASH, max (FLTM BV 150-10)

44 %

3.5 DENSITY (ASTM D 792)

Initial Sample +/-
0.05 g/cm³; max
1.62 g/cm³

3.6 SOFTENING POINT (ASTM E 28, ring and ball apparatus)

140 - 155 °C

Date	Action	Revisions
2002 09 12	Revised	Updated and renumbered
1991 02 01	C01089481000	Released K. Wolters

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3.7 VISCOSITY

(ASTM D 4402, Brookfield RVT/D
Thermosel, Spindle No. SC4/27
or equivalent equipment)

160 °C: 1 rpm	94 000 - 126 000 mPa.s
170 °C: 2.5 rpm	52 000 - 73 000 mPa.s
180 °C: 2.5 rpm	35 000 - 53 000 mPa.s

3.8 SHEAR STRENGTH, min

(FLTM BU 151-01, Method A, Figure 4)

Test Method:

Apply adhesive at an application temperature of 170 – 180 °C to a 25 x 10 mm area of a 25 x 75 mm non-impregnated canvas fabric piece to a thickness of approximately 1 mm.

Immediately after adhesive application place the adhesive side of the canvas specimen on a hard board panel of 60 x 150 mm in production thickness and roll the overlapped area once with a 2 kg roller per ASTM D 1000.

3.8.1 Original Value, min 4 MPa or break of substrate

After 1 h at 23 +/- 2 °C determination of shear strength at a rate of 25 mm/minute.

3.8.2 After Aging, min 4 MPa or break of substrate

Age specimen for 14 days at 90 +/- 2 °C and 14 days at 100 +/- 2 °C.

Evaluation after conditioning 1 h at 23 +/- 2 °C.

No loss of shear strength based on the original measured value.

3.8.3 After Environmental Cycling, max - 15 %

Specimen is exposed to 5 cycles of the following sequence:

16 h at 38 +/- 2 °C and 98 +/- 2 % relative humidity
4 h at - 40 +/- 2 °C
4 h at 90 +/- 2 °C

Maximum 15 % loss of shear strength based on the original measured value.