## Glunz AG: NAF-Hersteller von MDF und Dünn-MDF

Seit dem 03.12.2009 ist die Glunz AG, Meppen/D als sogenannter NAF-Hersteller von MDF (Mitteldichten Faserplatten) und Dünn-MDF anerkannt. Dies wurde dem Unternehmen von dem kalifornischen Air Resources Board (ARB), Sacramento/USA bescheinigt.

**NAF** ist die Abkürzung für **No-A**dded **F**ormaldehyde und bedeutet, dass für die Herstellung bestimmter MDF-Produkte **keine formaldehydbasierenden Bindemittel** eingesetzt werden.

Um eine entsprechende Bescheinigung zu erhalten, muss die Zertifizierung durch eine vom ARB anerkannte Stelle (engl.: TPC = **T**hird **P**arty **C**ertifier) vorliegen. Als TPC der Glunz AG fungierte das Fraunhofer-Institut für Holzforschung (WKI) in Braunschweig/D.

Derzeit stellt NAF den **höchstmöglichen Standard bezüglich Formaldehydemission** bei Holz- und Holzwerkstoffen dar. Dabei gibt es noch weitere Standards:

Standard	Erläuterung	Grenzwerte [ppm]	
		MDF	Dünn-MDF
CARB 1 1)	seit 2009 in Kraft: momentan in Kalifornien verbindlich	0,21	0,21
CARB 2 <sup>1)</sup>	ab 2011 (bzw. 2012 bei Dünn-MDF) für Kalifornien verbindlich; wird vorzugsweise in Europa für Lieferungen in die USA verwendet	0,11	0,13
ULEF 2)	derzeit gibt es im Bereich MDF/ Dünn-MDF zwei Hersteller weltweit, die Produkte nach diesem Standard fertigen	0,09	0,11
NAF	derzeit gibt es neben der Glunz AG weltweit vier weitere anerkannte NAF-Hersteller im Bereich MDF	0,06	0,06
	Messwerte der Glunz AG	0,02	0,02

Die Glunz AG ist nach heutigem Stand der **einzige Hersteller in Kontinentaleuropa**, der MDF-Platten nach dem NAF-Standard produziert und vertreibt.

Die NAF-Bescheinigung der Glunz AG bezieht sich auf folgende Produkte in den Stärkenbereichen ≤ 8 mm und 8 bis 80 mm:

Topan® Colour black	Topan <sup>®</sup> Colour green	Topan <sup>®</sup> Tieffräs
Topan® Colour orange	Topan <sup>®</sup> Colour brown	Topan <sup>®</sup> Leicht 580
Topan® Colour blue	Topan® Standard FF	Topan <sup>®</sup> Leicht 480
Topan® Colour yellow	Topan <sup>®</sup> Leicht FF	Topan <sup>®</sup> LL FF
Topan® Colour red	Topan® Paneel FF	Topan® HDF

Weitere Details können Sie dem beigefügten Executive Order N-09-030 entnehmen.

Ausführliche Informationen finden Sie auch auf der Website des ARB unter www.arb.ca.gov.

<sup>1)</sup> CARB = Californian Air Resources Board

<sup>&</sup>lt;sup>2)</sup> ULEF = **U**ltra **L**ow **E**mitting **F**ormaldehyde

## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER N-09-030

Relating to ARB Approval to use No-added Formaldehyde Resins by Composite Wood Product Manufacturers under section 93120.3, title 17, California Code of Regulations

## Glunz, AG

WHEREAS, the Air Resources Board (ARB) has adopted the "Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products" (the "ATCM"; title 17, California Code of Regulations, sections 93120-93120.12), which establishes formaldehyde emission standards for composite wood products;

WHEREAS, section 93120.1(a)(29) of the ATCM defines "no-added formaldehyde (NAF) based resins" to mean resins formulated with NAF as part of the resin cross linking structure for making hardwood plywood, particleboard, or medium density fiberboard, including, but not limited to resins made from soy, polyvinyl acetate, or methylene diisocyanate;

WHEREAS, section 93120.3(c) of the ATCM allows manufacturers of hardwood plywood, particleboard, and medium density fiberboard who use NAF based resins to apply for written approval from the Executive Officer for an exemption from the requirements of section 93120.3(b) of the ATCM;

WHEREAS, section 93120.3(c) of the ATCM allows manufacturers of hardwood plywood, particleboard, and medium density fiberboard who use NAF based resins to submit an application for an exemption from the requirements of section 93120.3(b) of the ATCM to the Executive Officer, which includes: (A) a statement indicating which product types will be manufactured using NAF based resins for sale in California; (B) the chemical formulation of the candidate NAF based resin(s), including base resins, catalysts, and other additives used in manufacturing; (C) the name of their ARB approved third party certifier; and (D) data on emissions performance of the candidate NAF based resin(s);

WHEREAS, the data on emissions performance of the candidate NAF based resin required in section 93120.3(c) of the ATCM must be obtained by working with an ARB approved third party certifier, and must include three months of routine quality control testing data, the correlation of the routine quality control testing data to primary or secondary testing data, and the results of one primary or secondary method test, as required in Appendix 2 of section 93120.12 of the ATCM;

WHEREAS, section 93120.3(c)(1) of the ATCM requires that ninety percent of the three months of routine quality control testing data and the results of the one primary or secondary method test must be shown to be no higher that 0.04 parts per million (ppm), and that all data must be shown to be no higher than 0.05 ppm for hardwood plywood and 0.06 ppm for particleboard, medium density fiberboard, and thin medium density fiberboard;

WHEREAS, section 93120.3(c)(4) of the ATCM provides that the Executive Officer shall approve the application and issue an Executive Order if the evidence submitted by the applicant is sufficient to demonstrate that the applicant has met the requirements specified in section 93120.3(c)(1) of the ATCM;

WHEREAS, Glunz, AG (the "applicant") submitted an application that was received on September 30, 2009;

WHEREAS, the application from Glunz, AG was deemed complete on October 30, 2009;

WHEREAS, the application from Glunz, AG specifies the range in product manufacturing parameters, applicable post-press product treatments, base resin trade name(s) and base resin manufacturer(s)/supplier(s), and other ingredients added to the base resin by the applicant to manufacture NAF medium density fiberboard and thin medium density fiberboard products;

WHEREAS, ARB was provided base resin/adhesive information specifying the base resin polymer type and minimum and maximum values of all major and any minor ingredients in the base resin on a percent weight of solids basis;

WHEREAS, the base resin/adhesive information was provided to ARB by Hunstman Corporation, Glunz, AG's resin supplier, and is set forth in Confidential Attachments A and B;

WHEREAS, section 93120.3(c)(4) of the ATCM provides that the Executive Officer shall approve the application and issue an Executive Order if the evidence submitted by the applicant is sufficient to demonstrate that the applicant has met the requirements specified in section 93120.3(c)(1) of the ATCM;

WHEREAS, the Executive Officer finds that the evidence submitted by the applicant meets the criteria specified in section 93120.3(c)(4) of the ATCM;

NOW, THEREFORE, IT IS ORDERED that Glunz, AG is hereby approved as a NAF manufacturer of medium density fiberboard and thin medium density fiberboard provided that the following terms and conditions are met for products sold, supplied, offered for sale, or manufactured for sale in California;

- Glunz, AG must use the commercial resins listed and suppliers listed in section A of Confidential Attachment A for the manufacture of NAF medium density fiberboard and thin medium density fiberboard products.
- The chemical formulation of the base resins used for the manufacture of NAF composite wood products by Glunz, AG must be within the ranges specified for the base resin named in section B of Confidential Attachment A.
- As specified in section B of Confidential Attachment A, Glunz, AG is legally responsible for insuring that the base resin is within the ranges specified in section B.
- The application rate of the base resins used for the manufacture of NAF composite wood products by Glunz, AG must be within the ranges specified in section C of Confidential Attachment A.
- Other chemical components of the base resins (such as parraffin) used for the manufacture of NAF composite wood products by Glunz, AG must be within the ranges specified in section D of Confidential Attachment A.
- The allowable operating parameters for press temperature and press time
  for the base resins used to manufacture the NAF composite wood
  products by Glunz, AG must be within the ranges specified in section E of
  Confidential Attachment A.
- Only the composite wood products with the product names listed in section F of Confidential Attachment A are authorized under this Executive Order.

BE IT FURTHER ORDERED that Glunz, AG may change the resin system supplier listed in section A of Confidential Attachment A if the new resin supplier supplies the same resin type listed in Confidential Attachment A, confirmatory emission tests are conducted, and the Chief of the Air Quality Measures Branch within the Stationary Source Division is notified in advance of using the new resin system for production;

BE IT FURTHER ORDERED that Glunz, AG must conduct confirmatory testing for any new resin supplier by demonstrating that the results of two primary or secondary method tests for the new resin system supplier are no higher than 0.04 ppm for the NAF composite wood products authorized under this Executive Order:

BE IT FURTHER ORDERED that this Executive Order shall have a duration of two years, and the applicant may apply for re-approval as provided in section 93120.3(c)(4) of the ATCM.

BE IT FURTHER ORDERED that the application for re-approval specified in section 93120.3(c)(4) of the ATCM, as applicable, requires the applicant to submit the results of at least one primary or secondary method tests for the NAF composite wood products listed in Confidential Attachment A based on panels or a set of panels randomly selected and tested by an ARB approved third party certifier, and the chemical formulation of the NAF based resin(s). In addition, at least one primary or secondary method test must be provided for each facility which operates in accordance with this Executive Order, and the applicant must also include a current list of their resin suppliers.

BE IT FURTHER ORDERED that section 93120.3(c)(6) of the ATCM, as applicable, specifies that if the applicant decides to change to a formaldehyde based resin system, the applicant must notify ARB in advance of changing resin systems and must comply with the requirements of section 93120.3(b) of the ATCM for that product type.

BE IT FURTHER ORDERED that the Executive Officer may review and, for good cause, modify or revoke this Executive Order as provided in section 93120.3(c)(4) of the ATCM. The Executive Officer shall not modify or revoke this Executive Order without affording the applicant the opportunity for a hearing in accordance with the procedures specified in title 17, California Code of Regulations, section 60055.1 et seq.

BE IT FURTHER ORDERED that the applicant must maintain records in electronic or hard copy form for two years, for review by ARB upon request, as specified in section 93120.3(g) of the ATCM.

BE IT FURTHER ORDERED that the applicant must notify the Executive Officer in writing within 30 days of any change in their product manufacturing parameters or base resin manufacturer(s) or supplier(s) that constitute a modification outside the scope of their application for reduced testing under or an exemption from the requirements in section 93120.3(b) of the ATCM.

Executed at Sacramento, California this 3rd day of December, 2009.

Janette M. Brooks, Chief Air Quality Measures Branch

Stationary Source Division