

CERTIFICATE

Certificate of Conformity of the Factory Production Control with the number 1085-CPR-0001

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Product Regulation or CPR), this certificate applies to the construction products

**Polymeric geosynthetic barriers (geomembranes) AGRU PEHD
(raw material HDPE) used for the function B
according to Annex 1**

produced by

**AGRU Kunststofftechnik GmbH
Ing.-Pesendorferstraße 31, AT-4540 Bad Hall**

and produced in the manufacturing plant

Ing.-Pesendorferstraße 31, AT-4540 Bad Hall

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standards

**EN 13361:2004+A1:2006; EN 13362:2005; EN 13491:2004+A1:2006;
EN 13492:2004+A1:2006; EN 13493:2005; EN 15382:2013**

under system 2+ are applied and that the Factory Production Control fulfils all the prescribed requirements set out above.

This certificate was first issued on 2006-01-30 and will remain valid as long as the test methods and/or Factory Production Control requirements included in the harmonized standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly.

Vienna, 30th of December 2014



DI Udo Pappler
Head of Notified Body OFI CERT (No. 1085)

www.ofi.at

At www.oficert.at the certificate is available in form of a listing. More detailed information about the validity or a possible abandonment and withdrawal are detectable there.



Notified Body OFI CERT
OFI Technologie & Innovation GmbH
Arsenal, Objekt 213, Franz-Grill-Straße 5
1030 Vienna | AUSTRIA



CERTIFICATE

Annex 1 associated to the certificate with the number 1085-CPR-0001

Model type	Thickness in mm
G/G	0,50; 0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
G/G-G	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
G/MSB	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
MST/G	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
MST/MSB	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
MST/R50	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
G/R	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
G/S	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
D/G	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
D/S	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00;
R50/S	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
S/MSB	0,75; 1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
MST HighGrip/MSB+	1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00
MST+/MSB	1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00
MST+/G	1,00; 1,20; 1,50; 2,00; 2,50; 3,00; 4,00; 5,00

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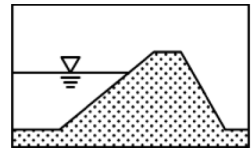
DoP No.: 1085/CPR/0001/2013-07-01
 AGRU PEHD Polymere Dichtungsbahnen (Geomembrane)
 AGRU PEHD polymeric geosynthetic barriers (geomembrane)



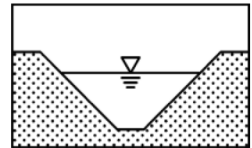
AGRU Kunststofftechnik GmbH
 Ing.–Pesendorfer-Str. 31
 A-4540 Bad Hall / Austria

Tel +43 7258 790 0 Fax + 43 7258 790 3863
 e-mail: office@agru.at

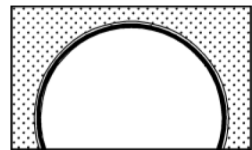
Anwendungen
 Applications
 Annex ZA
 EN 13361



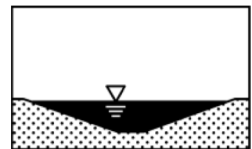
EN 13362



EN 13491



EN 13492



EN 13493



EN 15382



Funktionen / Functions



Zugfestigkeit längs und quer <i>Tensile strength MD/CMD</i>	> 15 N/mm ²	ISO 527
Witterungsbeständigkeit <i>Resistance to weathering</i>	Residual tensile strength > 75%	EN 12224
Spannungsrissbeständigkeit <i>SP-NCTL Stress Crack Resistance</i>	> 340 h	EN 14576
Stempeldurchdrückkraft ¹⁾ <i>CBR puncture strength ¹⁾</i>	> 1,5 kN	EN ISO 12236
Gasdichtheit <i>Gas permeability</i>	4,4 ⁻⁰² mol/m ² .d	ASTM D 1434
Oxidationsbeständigkeit <i>Resistance to oxidation</i>	Residual tensile strength > 75%	EN 14575

Note: ¹⁾ correlates to 1 mm thickness

Weitere Informationen / Other Information:

Die Kunststoffdichtungsbahn ist innerhalb eines Jahres abzudecken, die Bahnen mit Signalschicht innerhalb von 3 Tagen.

The geomembrane must be covered within a year, the geomembrane with signal layer within three days.

Abnahmeprüfzeugnis 3.1 nach EN 10204:2005

Inspection certificate 3.1 acc. to EN 10204:2005 / Certificat 3.1 selon EN 10204:2005

Gruppennummer: / Group number: / Numéro de groupe: 2021012169 30.09.2021
 Lieferscheinnummer: / Delivery note: / Numéro de bordereau de livraison: LE21/029851
 Kunden-Bestell-Nr.: / Customer order number.: / N° de commander les clients: Order 03/2021

Produkt / Product / Produit 27410500040
PEHD schwarz / HDPE black / HDPE noir
Schweisdraht 3kg Rolle / Welding-Rod 3kg roll / Fil à souder 3kg rouleau
Kreis-Querschnitt / circular profile / section circulaire
 extrudiert / extruded / extrusion
4mm x min. 220m
 Extrusionsschweissung / Extrusion-welding / soudage par extrusion

Chargennummer / Batch number / Numéro de charge 2020.2
Produktionszeitraum / Date of Manufacturing / Période de production 07.09.2020 - 11.09.2020
Formmasse / Raw material / Masse de forme Lotrène Q K307 natur/nature) + MB schwarz/black/noir
Rohstoffcharge / Batch number / Numéro de charge 33193640-33193645
Prüfnorm / Test standard / Norme de contrôle angelehnt an DVS 2211
 according to DVS 2211
 d'après DVS 2211

Eigenschaft Characteristic Propriété	Prüfnorm Specification Norme de contrôle	Bedingung Condition Condition	Sollwert Nom. Value Valeur prescrite	Ergebnis Result Résultat	Einheit Unit Unité
Breite Width Largeur				entspricht fulfilled conforme	mm mm mm
MFR - Prüfung Produkt MFR - product MFR - examen de produit	ISO 1133-1	190°C/5,00kg		1,08	g/10 Min. g/10 min. g/10 min.
MFR - Rohstoff MFR - raw material MFR - test de résin	ISO 1133-1	190°C/5,00kg	1,0 - 2,9	1,06	g/10 Min. g/10 min. g/10 min.
Lieferzustand Delivery condition Etat de livrer		visuell visual visuel		entspricht fulfilled conforme	
Dimensionskontrolle geometrical characteristics Contrôle de dimension		23°C±2°		entspricht fulfilled conforme	
Oberflächenbeschaffenheit Surface quality Constitution de surface		visuell visual visuel		entspricht fulfilled conforme	
Warmlagerung längs Heat reversion MD Détermination de la stabilité dimensionnelle SP		120°C/60Min./≤2,0		-1,10	% % %

Die in diesem Werkszeugnis angegebenen Prüfergebnisse sind den Aufzeichnungen über die betrieblichen Prüfungen an Halbzeugen aus dem gleichen Werkstoff und der gleichen Herstellungsart wie die Lieferung selbst entnommen.

The test results of this certificate have been taken from the records of the internal testings for semi finished products out of the same raw material and the same kind of production as delivery.
 Les résultats de contrôle indiqués dans ce certificat d'œuvre sont empruntés eux-mêmes aux enregistrements sur les Prüfungen de l'entreprise aux demis témoins du même matériau et la même espèce de production que la livraison.

Narbeshuber Thomas - Werksachverständiger - Dieses Zeugnis wurde mittels EDV erstellt und somit auch ohne original Unterschrift gültig.
 Narbeshuber Thomas - Authorized plant representative - This certificate was prepared by EDF and therefore is valid also without original signature.
 Narbeshuber Thomas - Le responsable qualité - Ce certificat fut fait par informatique et il est par conséquent aussi valable sans signature.

Annex 1/1 to the ISO 9001 certificate, registration number: 00618/1

AGRU Kunststofftechnik GmbH
A-4540 Bad Hall, Ing.- Pesendorferstrasse 31

The scope of application listed below is including in the certificate of the company mentioned above:

Plant 1

Grünburgerstr. 41 – 4540 Bad Hall – Österreich
Production of fittings out of different plastics materials

Plant 2

Ing. Pesendorferstr. 31 – 4540 Bad Hall – Österreich
Head office / administration, Storage/Logistic for pipes, sheets and semi finished products
Production of pipes, sheets and semi finished products out of different plastics materials

Plant 3

Ing. Pesendorferstr. 31 – 4540 Bad Hall – Österreich
Storage/Logistic for Fittings out of different plastics materials
Sales, Distribution, Technical department and Research & Development for plastic products

Plant 4

Ing. Pesendorferstr. 31 – 4540 Bad Hall – Österreich
Production of flat and structured calendred linears

Plant 5

Ing. Pesendorferstr. 31 – 4540 Bad Hall – Österreich
Production of pipes and fittings out of Fluorpolymer plastics

Plant 6

AGRU CHS MFG, LCC
1401 Greenleaf Road
Charlston, SC 29405
Production of pipes out of HDPE

Plant 7

Andrews #2
Agru America, Inc.
3537 County linde Rd
Andrews, SC 29510
Production of pipes out of HDPE