



## THE CHALLENGE

Plants for the production of biodiesel involve several processing stages from the feedstock to the finished product, e.g. transesterification and distillation. Hereby, different media such as vegetable oils (palm, sunflower seed, and rape oil), methanol, glycerine, and vegetable oil methyl ester at temperatures exceeding 150 °C must be sealed safely and reliably – preferably using just one type of gasket material for reasons of standardization.

## THE SOLUTION FROM VICTOR REINZ

All-in-one – AFM 34. Thanks to its universal chemical resistance, the material is suitable for use with all the media encountered during the production of biodiesel – also at elevated temperatures. Moreover, the high mechanical strength provides additional safety, whilst outstanding gas tightness is a standard feature of AFM 34. Important for installation: AFM 34 is very easy to handle and insensitive to damage. All in support of biofuels from sustainable energy sources.

What kind of challenge do you face? Give us a call!

(1) +49 (0) 731-7046-777

Case study no. 9: Durability wins - AFM 34 flange and equipment gaskets for biodiesel production plants



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Technical Data <sup>1)</sup> (nominal thickness 2.00 mm)		AFM 34
Tensile strength (across grain)	ASTM F 152	> 18 N/mm <sup>2</sup>
Residual stress	DIN 52913	
16 hrs, 300 °C		~ 25 N/mm <sup>2</sup>
16 hrs, 175 °C		~ 36 N/mm <sup>2</sup>
Compressibility and recovery	ASTM F 36 J	
Compressibility		5-8 %
Recovery		> 55 %
Sealability		
DIN 3535-6 FA		~ 0.02 mg/(s·m)
according to TA-Luft (VDI 2440/2200)		
Q=30 MPa, T=200 °C (2000 h!), ∆p <sub>HE</sub> =1 bar		8.6·10 <sup>-8</sup> mbar·l/(s·m)
Swelling	ASTM F 146	
- in oil IRM 903, 5 hrs, 150 °C		
Increase in thickness		< 7 %
Increase in weight		< 7 %
- in ASTM Fuel B, 5 hrs RT		
Increase in thickness		< 10 %
Increase in weight		< 10 %
- in water/antifreeze (50:50), 5 hrs, 100 °C		
Increase in thickness		< 10 %
Increase in weight		< 10 %
Continuous temperature maximum <sup>2)</sup>		250 °C
Operating pressure maximum <sup>2)</sup>		150 bar
Form of delivery		AFM 34
Gaskets according to drawings, dimensional specif	ications, or other	

Gaskets according to drawings, dimensional specifications, or other agreements	
Sheets (standard format)	1500 x 1500 mm
Nominal thickness	0.30 to 5.00 mm
Tolerances	according to DIN 28091-1

## **Release specifications**

DIN-DVGW, SVGW, ÖVGW
FDA-compliant (21 CFR § 177.2600)
KTW, WRc/WRAS
VP401 (HTB), Fire Safe, BAM
Grade X
TA-Luft

Note: Refer to data sheet No. 334 or visit our website at www.reinz.com/datasheet for more detailed information.

<sup>9</sup> The preceding technical data applies to the material in its delivery condition without additional treatment or handling.
<sup>a</sup> Maximum continuous temperature and maximum pressure may not occur simultaneously.

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