

Technical product information

Topic	Sunroof blind not retracting Bentayga Series
Market area	Bentley: worldwide (2WBE),China 796 VW Import Comp. Ltd (Vico), Beijing (6796)
Brand	Bentley
Transaction No.	2078373/4
Level	EH
Status	Released for publishing
Release date	August 3 2026

New customer code

Object of complaint	Complaint type	Position
roof systems, special installations -> sliding/tilting sunroof	functionality	
roof systems, special installations -> actuator for sliding/tilting sunroof, panoramic sunroof -> mechanical sunblind	functionality -> defective function sequence	
body fixtures and fittings -> sunblind operation	functionality	
roof systems, special installations -> actuator for sliding/tilting sunroof, panoramic sunroof -> electric sunblind	functionality -> defective function sequence	
roof systems, special installations -> panoramic sliding sunroof -> bow for roller sunblind of panoramic sunroof	component / consumables -> damaged	
roof systems, special installations -> sliding/tilting sunroof -> roller blind for sliding/tilting sunroof	soiling -> soiled	

Vehicle data

Bentayga Series

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4V1*	2017	E		*	*	*
4V1*	2018	E		*	*	*
4V1*	2019	E		*	*	*
4V1*	2020	E		*	*	*
4V1*	2021	E		*	*	*
4V1*	2022	E		*	*	*

4V1*	2023	E		*	*	*
4V1*	2024	E		*	*	*
4V1*	2025	E		*	*	*
4V1*	2026	E		*	*	*
4V1*	2027	E		*	*	*
ZV1*	2023	E		*	*	*
ZV1*	2024	E		*	*	*
ZV1*	2025	E		*	*	*
ZV1*	2026	E		*	*	*
ZV1*	2027	E		*	*	*

Documents

Document name
master.xml
carbaflo_2160_tds.pdf

Customer statement / workshop findings

Customer may report that the sunroof blind is stuck in the closed position and cannot be opened using interior controls. The Sunroof blind is stuck due to uneven/ruffled or crumped during open or closing.

Technical background

The issue may be caused by one or more of the following:

- Physical damage to the sunroof blind
- The blind is not attached to the runners
- Broken or worn slide shoes
- Contamination of the guides or slide paths due from debris (e.g., leaves, stones, dust)
- Faulty or non-responsive sunroof blind motor
- Sunroof blind motor drive gear is clogged with fibres
- Broken, loose or missing roller blind guide
- High resistance of motor.

Each of these issues must be assessed and documented before any parts are replaced.

Refer to the measure section for further information.

Revision History

2078373/4 – Updated diagnostic process and Figure 1 flowchart to include an external voltage check of the sunroof blind motor, supporting fault isolation between motor and control module concerns.

Production change

Under Review

Measure



CAUTION

Please ensure all guidelines within the repair manual are strictly followed before and whilst conducting any work on vehicles with a High voltage system

Do not replace any parts before conducting the required contamination and/or damage checks, see steps 1-13 below.

Should part 4M0 877 307 A/B (Sunblind) be confirmed faulty after following the steps 1-13 below, replace the part and include the following in a non-technical DISS ticket, clear photos of the fault and the identification serial number label of the roof and the sunroof blind (see figure 16 for serial number location).

Refer to ElsaPro Repair Group 60 'Sunroof sunblind – To remove and fit'

If, the sun roof blind is not damaged or contaminated. Attempt to operate the blind using the interior controls. If no motor sound is present: proceed with electrical diagnosis of the motor unit. If required, refer to ElsaPro Repair group 60 'Sunroof motor – To remove and fit'.

NOTICE

IMPORTANT: Only replace the motor if it is electronically or mechanically faulty. If the motor is to be replaced. Submit a non-technical DISS query and include clear photographs of the serial number of the roof and sunroof blind. See figure 16.

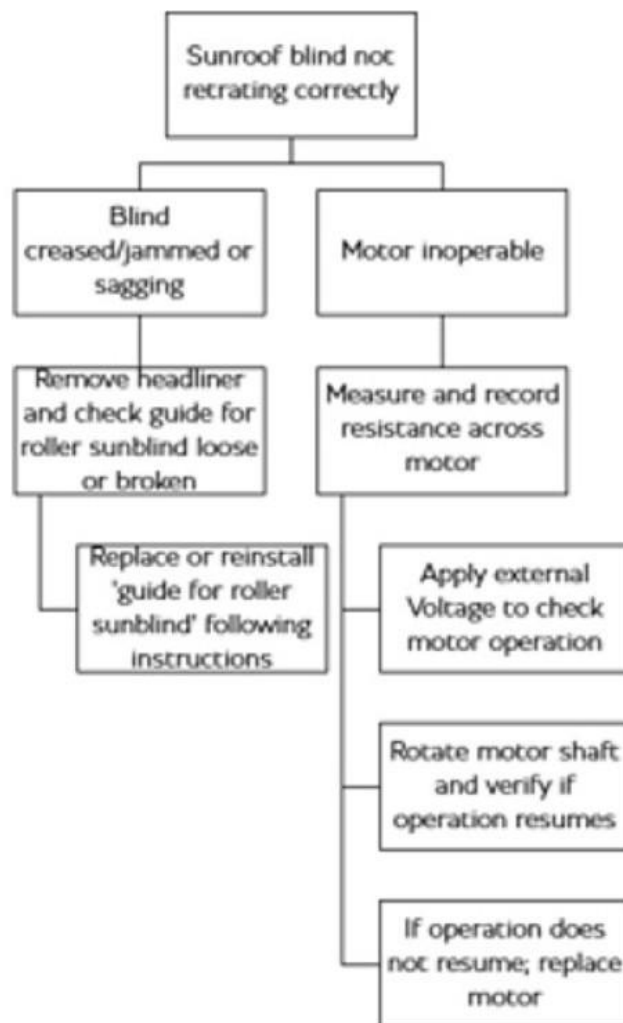


Figure 1 Flowchart illustrating diagnosis guidelines

Contamination and/or damage Inspection



Figure 2 Contamination of roof / guides for sunblind slide shoes

1. Inspect the sunroof blind frame for contamination of the guides (located under rear glass).
2. While the sunroof is stationary, visually inspect the rear section of the guide channels from underneath the rear glass. Check for small materials such as:
 - Small stones
 - Excessive dirt or dust
 - Organic matter (e.g., pine needles, leaves).



NOTICE

The guides must be completely clean and free from all contamination to ensure smooth operation.



Figure 3 Contamination of roof check

3. Inspect areas 'A' labelled in figure 3 of the frame for contamination.
- The yellow markings highlight the area most likely to become contaminated when the roof is opened.

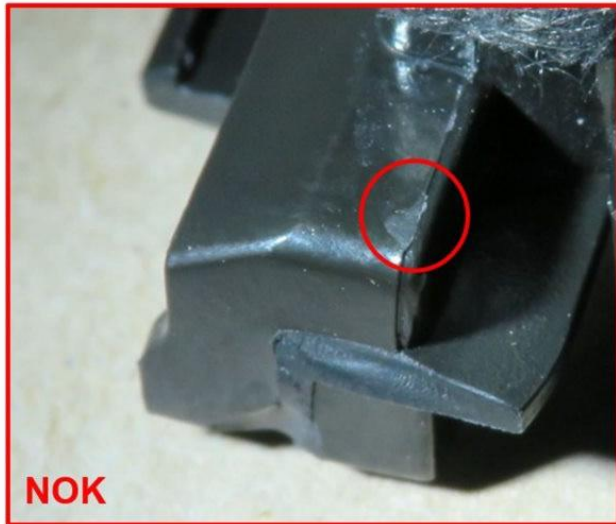


Figure 4 Damage of the sunroof blind slide shoes due to contamination check

4. Inspect the sunroof blind slide shoes for:

- Cracks
- Wear
- Missing plastic components
- Distortion from misalignment.

NOTICE

All slide shoes must be intact and free of visible damage.

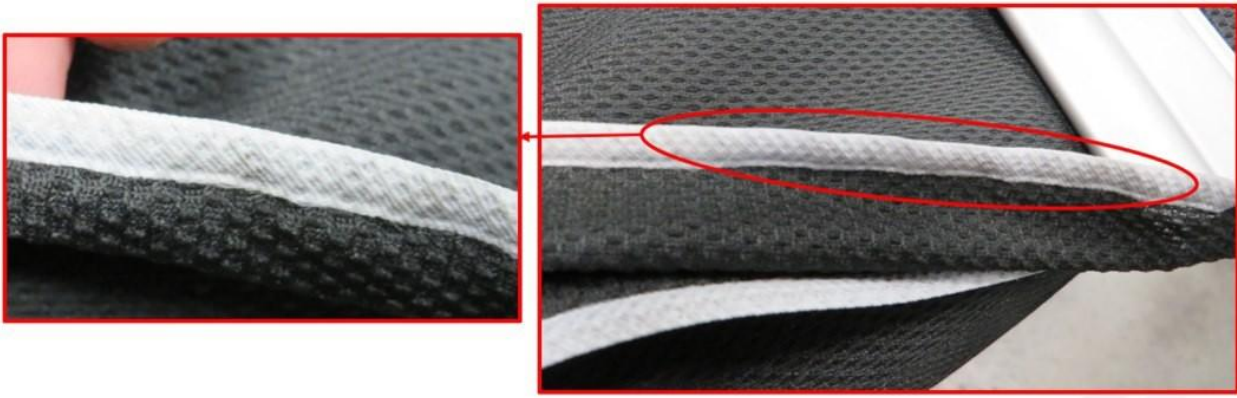


Figure 5 Contamination of roof / PDF strip check

5. Inspect the PDF strip of the blind material, check for contamination on areas corresponding to the slide shoe path. If the guide is contaminated it is likely that the PDF strip is also contaminated or damaged.



Figure 6 PDF strip derailment check

6. Inspect the blind guides if they are coming off the runners and check the PDF strip for any derailing issue or NOK welding of the PDF strip.

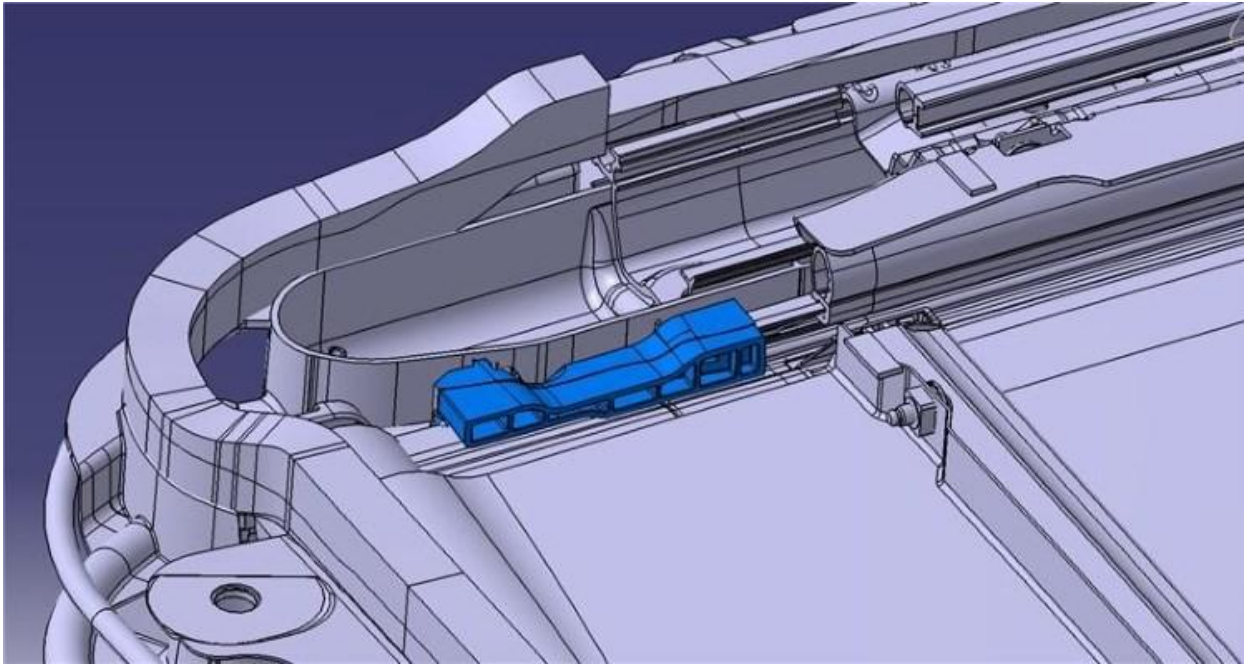


Figure 7 *Guide part location*

Inspect the guide part by removing headliner (refer to ElsaPro Repair Group 70 'Headlining – To remove and fit').



Figure 8 *Examples of missing, loose and damaged guide parts*

If part 4M0 898 924 damaged or missing (see figure 8), then replace following the instructions below:



Figure 9 *Female part to PDF strip alignment*

a. Align the female part with the PDF strip.



Figure 10 *Male part to female part fitment*

b. Insert the male part into the female part until it clicks into place.



Figure 11 *Fitment check*

c. Tug gently on the PDF strip to confirm its secured within the two parts.

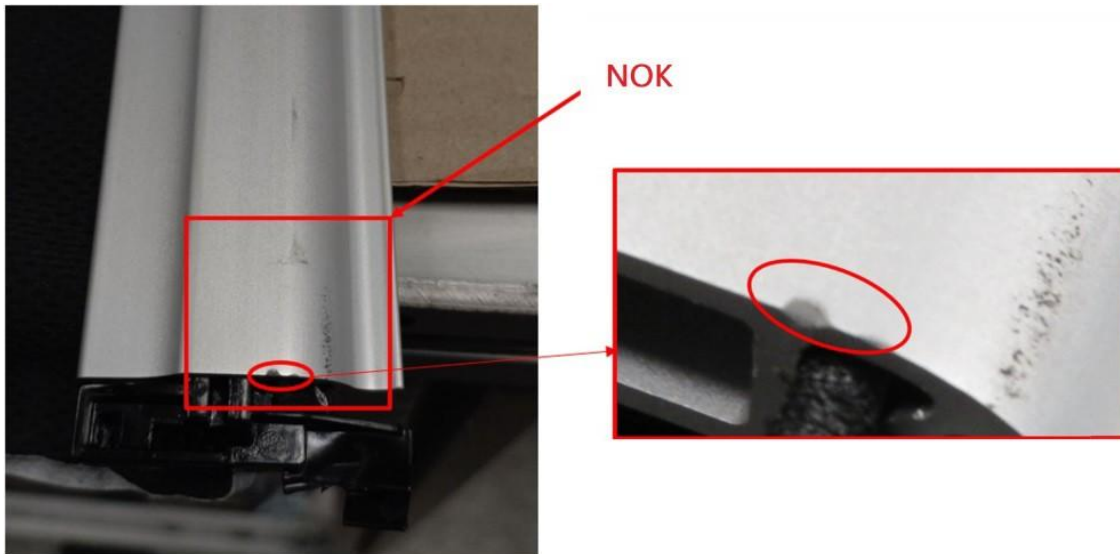


Figure 12 Sunblind beam check

7. Inspect the sunblind beam for scratches or damage. Damage would indicate presence of external contamination.

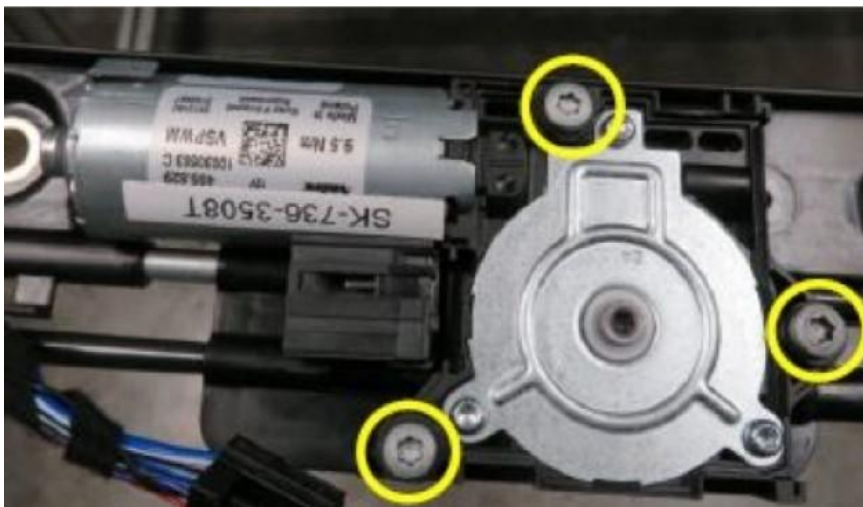


Figure 13 Electric drive motor securing screws

8. Locate and carefully detach the sliding electric drive unit from the drive assembly by removing the three securing screws circled in figure 13.

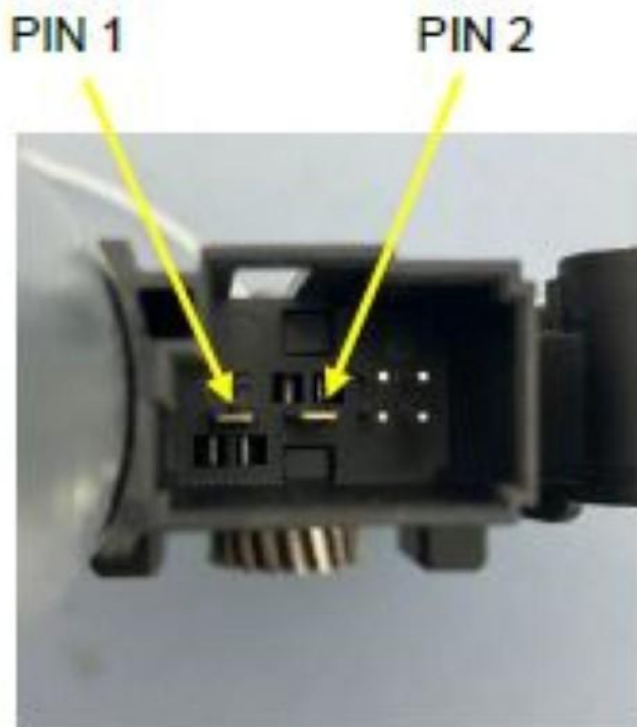


Figure 14 Location of pins on motor

9. Measure and record resistance across Pins 1 and 2 and include reading in DISS ticket.

If no fault is identified during the preceding diagnostic steps, perform an external voltage check on the sunroof blind motor to verify motor operation.

Using the motor connector shown in Figure 15, apply an external 12V supply across Pins 1 and 2:

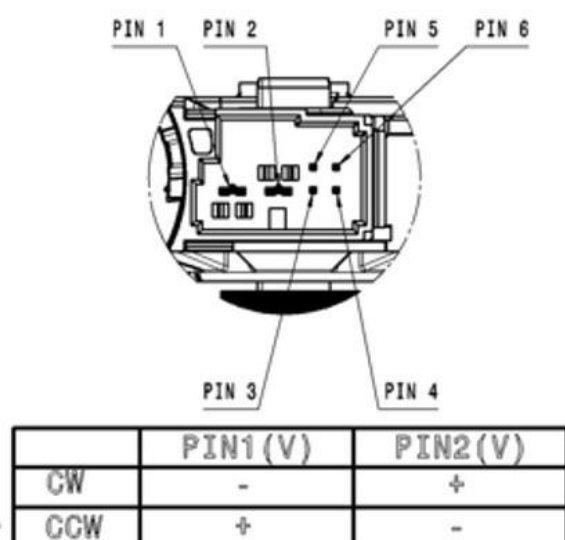


Figure 15

CW (Clockwise) direction: Pin 1 (-), Pin 2 (+)

CCW (Counterclockwise) direction: Pin 1 (+), Pin 2 (-)



Important: Apply the polarity so the blind moves away from its current end position (open the blind if currently closed or close the blind if currently open) to prevent over-travel.

Assessment:

- If the blind operates correctly under external voltage, investigate sunroof control module position detection concerns.
- If the blind does not operate, suspect a sunroof blind motor fault or excessive resistance within the mechanism.



Figure 16 *Position of motor shaft*

10. While the motor is disengaged from the drive cables, rotate the motor shaft using a soft jaw wrench and verify that it operates correctly in isolation.

If operation does not resume, replace sliding motor 4M0 959 591/A (refer to ElsaPro Repair group 60 'Sunroof motor – To remove and fit').

11. Apply grease to the motor unit pinion and reassemble the motor to the sunroof blind.

NOTICE

Use CARBAFLO® 2160 or an equivalent high temperature grease that meets the attached specification. The equivalent may be sourced locally.

12. Operate the blind in one direction, then again carefully detach the sliding electric drive unit from the drive assembly.

13. Re-apply grease to the motor unit pinion and finally re assemble the motor to the sunroof blind.

Location of Identification labels on the sunroof

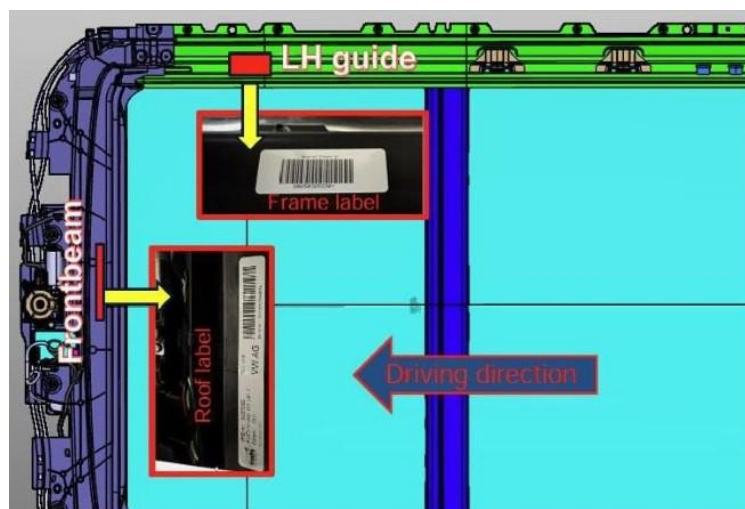


Figure 17 Roof and Frame identification labels

After part replacement, include the following in a non-technical DISS ticket, clear photos of the identification serial number label of the roof and the sunroof blind, see figure 17 above for serial number location.

The identification labels are only accessible with the interior headlining removed, refer to ElsaPro Repair Group 70 'Headlining – To remove and fit'.

Warranty accounting instructions

Warranty type 110 or 910

Damage service number 68 96

Damage code 00 40

Time to remove and install sunroof blind

Labour operation code 60 70 19 00

Time 370 TU

Time to replace sunroof blind motor unit

Labour operation code 60 72 19 00

Time 180 TU

Time to remove and fit headlining

Labour operation code 70 84 19 00

Time 340 TU

Parts information

Part Number	Description	Replace If..
4M0 877 307 A/B	Sunroof Blind	Blind is damaged, off runner, or slide shoes broken.

4M0 959 591	Sliding Motor	Confirmed electronically or mechanically faulty
4M0 898 924	Sundry parts set roller sunblind – Guide roller sunblind	Damaged or missing from assembly

Refer to ETKA parts catalogue

Carbaflo® 2160

Perfluorinated High Temperature Grease

Product description

CARBAFLO® 2160 is a soft high temperature resistant grease for the lubrication of high temperature bearings. It is resistant against organic alkaline and inorganic acids and exhibits excellent high pressure properties. The low evaporation rate of the base oil guarantees extended re-lubrication intervals at elevated temperatures, which often reach or are longer than the lifetime of the components.



Ingredients

CARBAFLO® 2160 contains PTFE, Fluorohydrocarbonpolymers, EP-, Anti-wear-, corrosion protection-, de-watering- and high pressure-additives.

TEST	SPECIFICATION	RESULT
Appearance		soft, homogenous, pasty
Colour		white
Density (20°C)	IP 365 / 85	1,9 g/cm ³
Consistency (NLGI - Grade)		1 - 2
Viscosity index (Base oil)		320
Viscosity (Base oil)	20 °C	550
	40 °C	310
	100 °C	86
Evaporation losses	ASTM D2595 (Base oil)	149 °C 0,0 204 °C 0,4
VKA Test (75°C, 1200rpm, 40kg)	ASTM D4172	1,21 mm
Operation temperature	DIN 51802	-60°C up to +260 °C

Advantage

CARBAFLO® 2160 is resistant against the most organic solutions and inorganic acids and has a better oxidation resistance than mineral or synthetic oils. It protects from corrosion and is non toxic in the usable temperature range.

CARBAFLO® 2160 has excellent high pressure properties, which work along the whole temperature range. The product is chemically inert and is not influenced by chemicals used for metalworking or coating.

CARBAFLO® 2160 has outstanding dielectric properties and is suitable for the lubrication of electrical com-

Application

The surfaces should be completely cleaned from dust, dirt, fingerprints, mineral oils or other synthetic oils than CARBAFLO® and so on.

Cleaning from CARBAFLO® 2160 can be done by CARBAFLO® 790