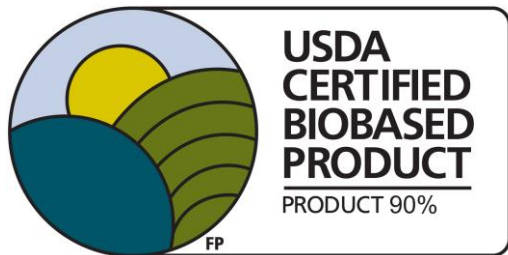




## Case Study

*"1 Year Roof Rejuvenation & Oil Replenishment"*

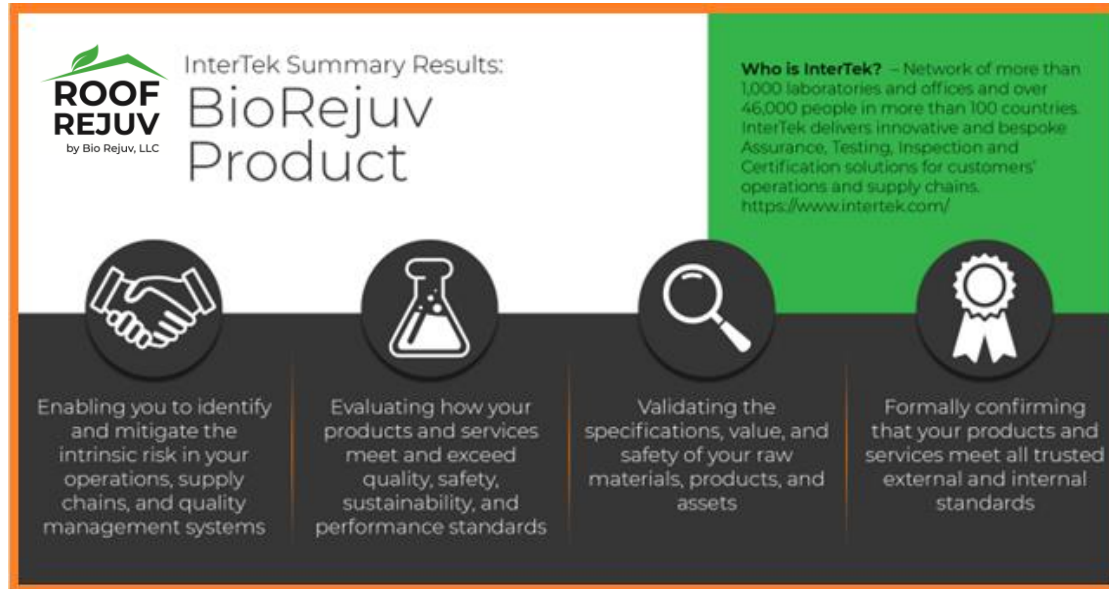
*Photos are unedited and nonfiltered*



## Chemistry

- The Roof Rejuv formula will initially deepen the color of a shingle but not change the color.
- The solution penetrates each layer of the asphalt shingle, replenishing the fine oils and restoring pliability.
- A hydrophobic effect is produced once the solution is fully absorbed. Allowing rain water and snowmelt to repel vs. absorb into the shingle.

# Fine Oil Replenishment – Asphalt Shingles



## UL2218- Impact Resistance (Hail Damage Test)

There were **no failures** of the BioRejuv treated new and old asphalt shingles.

The untreated new and old asphalt shingle exhibited multiple failures.

## ASTMD3462- Pliability Test

There were **no failures** in the BioRejuv treated used asphalt shingles proving BioRejuv completely rejuvenated the shingles.

Failures existed with the untreated used asphalt shingles. Cracking was evident in many samples of the untreated shingles.

## ASTME96- Water Vape or transmission (Water Proofing or Sealing)

BioRejuv has shown to decrease water infiltration/vapor through the used shingles by **97%**. This proves BioRejuv rejuvenated and sealed the old asphalt shingles.

## UL2218- Impact Resistance (Hail Damage Test)

The treated used asphalt shingles had **84%** more granule retention over the untreated old shingle samples.

# Snowmelt Winter 2020 – 5 Months after first Treatment



## Roof Rejuv Treatment October 2020

- Asphalt Shingles – 17 years old. Dry, brittle and aged. Nearing end of lifespan.
- Western, Pennsylvania.
- Four Seasons (Summer, Fall, Winter, Spring.)
- Commercial Property.



# Oil Replenishment – 6 months after first treatment

Photo Taken 6 months  
after treatment 4/1/2020



Unsprayed/Untreated



Roof Rejuv Treatment October 2020

- Asphalt Shingles – 17 years old. Dry, brittle and aged. Nearing end of lifespan.
- Western, Pennsylvania.
- Four Seasons (Summer, Fall, Winter, Spring.)
- Commercial Property.

# 12 Months after first Treatment – Four Seasons



Photos taken at side angle  
10/1/2021

Replenished and near original  
installation color

Photos Taken 10/1/2021

← 1 full year after first shingle treatment →





# 12 Months after first Treatment – Four Seasons

Photos Taken 10/1/2021

1 full year after first shingle treatment

- Asphalt completely replenished and rejuvenated.
- Pliability and Flexibility returned.
- Aging process stopped.

Rejuvenated



Untreated





# 12 Months after first Treatment – Four Seasons

Photos Taken 10/1/2021

1 full year after first shingle treatment

- Asphalt completely replenished and rejuvenated.
- Pliability and Flexibility returned.
- Aging process halted.

Rejuvenated Closeup





# 12 Months after first Treatment – Four Seasons

Photos Taken 10/1/2021

- Dry, Brittle
- Cracking.
- Aging daily.

Untreated Closeup





# 12 Months after first Treatment – Four Seasons

Photos Taken 10/1/2021

1 full year after first shingle treatment

- Gutter full of Aggregate on unsprayed section. Granular in tact on sprayed section.
- Gutter Clean on sprayed section



# 12 Months after first Treatment – Four Seasons



Photos Taken 10/3/2021

← 1 full year after first shingle treatment



Photos taken head-on 10/3/2021 →

Replenished and near original  
installation color