

# Biały Kapłan

- Gravity **13.9 BLG**
- ABV ---
- IBU **15**
- SRM **2.3**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

## Steps

- Temp **48 C**, Time **20 min**
- Temp **66 C**, Time **30 min**
- Temp **100 C**, Time **1 min**
- Temp **65 C**, Time **50 min**
- Temp **73 C**, Time **20 min**

## Mash step by step

- Heat up **13.2 liter(s)** of strike water to **52.7C**
- Add grains
- Keep mash **20 min** at **48C**
- Keep mash **50 min** at **65C**
- Keep mash **30 min** at **66C**
- Keep mash **20 min** at **73C**
- Keep mash **1 min** at **100C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 2 kg (45.5%)   | 80 %  | 4   |
| Grain | płatki owsiane      | 0.4 kg (9.1%)  | --- % | --- |
| Grain | pszenica            | 1.5 kg (34.1%) | --- % | --- |
| Grain | płatki orkiszowe    | 0.4 kg (9.1%)  | --- % | --- |
| Grain | zakwaszający        | 0.1 kg (2.3%)  | --- % | --- |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | Perle | 20 g   | 60 min | 7 %        |

## Yeasts

| Name               | Type  | Form   | Amount | Laboratory       |
|--------------------|-------|--------|--------|------------------|
| FM20 Białe Walonki | Wheat | Liquid | 125 ml | Fermentum Mobile |

## Extras

| Type  | Name              | Amount | Use for   | Time     |
|-------|-------------------|--------|-----------|----------|
| Spice | kolendra          | 10 g   | Boil      | 0 min    |
| Spice | curacao           | 10 g   | Boil      | 10 min   |
| Other | skórka pomarańczy | 3 g    | Secondary | 5 day(s) |
| Other | skórka cytryny    | 2 g    | Secondary | 5 day(s) |
| Other | trawa cytrynowa   | 15 g   | Boil      | 0 min    |

## Notes

- Pierwsza część zacierania to kleikowanie. Na koniec dodać 5-6 litrów zimnej wody  
*Jan 24, 2016, 12:14 PM*