

# 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*