

# #1 Witbier

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **17**
- SRM **3.3**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **6.9 liter(s)**
- Total mash volume **8.7 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **80 C**, Time **0 min**

## Mash step by step

- Heat up **6.9 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **0 min** at **80C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.6 kg (58.6%)	80 %	4
Adjunct	Pszenica niesłodowana	1 kg (36.6%)	75 %	3
Grain	Płatki owsiane	0.13 kg (4.8%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	8 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM20 Białe Walonki	Wheat	Liquid	1000 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	Kolendra indyjska	5 g	Boil	10 min
Flavor	Skórka pomarańczy + cytryny	100 g	Boil	10 min

## Notes

- <https://www.piwo.org/forums/topic/5480-browar-czarny-ry%C5%9B/page/56/?tab=comments#comment-444112>

<https://www.piwo.org/forums/topic/5480-browar-czarny-ry%C5%9B/page/60/?tab=comments#comment-517873>  
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