

# Zimowy Koziół

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **24**
- SRM **17.7**
- Style **Weizenbock**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **23.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **28.8 liter(s)**

## Steps

- Temp **42 C**, Time **15 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **22.1 liter(s)** of strike water to **45.3C**
- Add grains
- Keep mash **15 min** at **42C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	3.5 kg (52.2%)	85 %	4
Grain	Pilzneński	1.4 kg (20.9%)	80 %	4
Grain	Monachijski	1.2 kg (17.9%)	80 %	16
Grain	Strzegom Karmel 150	0.2 kg (3%)	75 %	100
Grain	Strzegom Czekoladowy jasny	0.2 kg (3%)	68 %	400
Grain	Melanoiden Malt	0.1 kg (1.5%)	80 %	39
Grain	Weyermann - Carafa I	0.1 kg (1.5%)	70 %	900

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	9.2 %
Boil	Tradition	15 g	25 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	200 ml	Fermentum Mobile

## Notes

- Finalnie uzyskałem 20L +1l chmieliny o wartości 18.2blg, słód Czekoladowy wrzucony na 72C, Carafa na ostatnią przerwę 5', wcześniej moczony w wodzie do wysładzania. Chłodzenie do 19 stopni, temp otoczenia 17C  
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