

Czarny Piotruś

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **13**
- SRM **24.3**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **18.5 liter(s)**

Steps

- Temp **44 C**, Time **15 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14.8 liter(s)** of strike water to **47C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pszeniczny	2 kg (54.1%)	81 %	6
Grain	Strzegom Pilzneński	1 kg (27%)	80 %	4
Grain	Strzegom Karmel 150	0.5 kg (13.5%)	75 %	150
Grain	Strzegom Czekoladowy ciemny	0.2 kg (5.4%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	15 g	40 min	4 %
Boil	Oktawia	15 g	10 min	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew WB-06	Wheat	Dry	11.5 g	Safbrew