

Porter czekoladowy

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **36**
- SRM **34.2**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss --- %
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

Steps

- Temp **67 C**, Time **80 min**

Mash step by step

- Heat up **20.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **80 min** at **67C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (43.5%)	80 %	5
Grain	Brown Malt (British Chocolate)	1 kg (14.5%)	70 %	128
Grain	Słód owsiany Fawcett	1 kg (14.5%)	61 %	5
Grain	Słód pszeniczny Bestmalz	1 kg (14.5%)	82 %	5
Grain	Fawcett - Pale Chocolate	0.3 kg (4.3%)	71 %	1100
Grain	Castle Cafe	0.3 kg (4.3%)	75.5 %	480
Grain	Karmelowy Pszeniczny Strzegom	0.3 kg (4.3%)	79 %	130

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %
Boil	Sorachi Ace	50 g	2 min	10 %