APorter

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **43**
- SRM **30.9**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.1 liter(s)**
- Total mash volume **13.4 liter(s)**

Steps

- Temp **64 C**, Time **60 min**

Mash step by step

- Heat up **10.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **7.3 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2.5 kg *(74.6%)*	79 %	6
Grain	Fawcett - Brown	0.25 kg *(7.5%)*	72 %	180
Grain	Castle Cafe	0.25 kg *(7.5%)*	75.5 %	480
Grain	Karmelowy Pszeniczny Strzegom	0.25 kg *(7.5%)*	79 %	130
Grain	Strzegom Czekoladowy ciemny	0.1 kg *(3%)*	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	15 g	60 min	10.5 %
Aroma (end of boil)	Centennial	15 g	15 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM10	Ale	Slant	500 ml	FM