

NDS

- Gravity **5.1 BLG**
- ABV **1.9 %**
- IBU **10**
- SRM **23**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **4.9 liter(s)**
- Total mash volume **6.3 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **4.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	0.9 kg (64.3%)	85 %	7
Grain	Jęczmień palony niesłodowany	0.1 kg (7.1%)	75 %	1100
Grain	Barley, Flaked	0.1 kg (7.1%)	70 %	4
Grain	Strzegom Karmel 600	0.3 kg (21.4%)	68 %	601

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	12 g	60 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM12 W szkocką kratę	Ale	Liquid	50 ml	Fermentum Mobile