

Dawid czy tam Goliat

- Gravity **23.3 BLG**
- ABV ---
- IBU **86**
- SRM **83.1**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **31.9 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5.4 kg (59.3%)	81 %	4
Grain	Briess - Smoked Malt	0.57 kg (6.3%)	80.5 %	10
Grain	Czekoladowy	0.685 kg (7.5%)	60 %	788
Grain	Jęczmień palony	0.8 kg (8.8%)	55 %	985
Grain	Aroma CastleMalting	0.4 kg (4.4%)	78 %	100
Grain	Płatki owsiane	0.8 kg (8.8%)	85 %	3
Grain	Caramel/Crystal Malt	0.45 kg (4.9%)	75 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	50 g	10 min	15.5 %
Aroma (end of boil)	Simcoe	50 g	1 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Liquid	1000 ml	White Labs

Extras

Type	Name	Amount	Use for	Time
Flavor	Cukier muscovado	622 g	Boil	15 min