

Stout Grodziski v1

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **38**
- SRM **31.3**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	4 kg (76.2%)	80 %	3
Grain	Barley, Flaked	0.4 kg (7.6%)	70 %	4
Grain	Simpsons - Crystal Medium	0.25 kg (4.8%)	74 %	108
Grain	Chocolate Malt (UK)	0.2 kg (3.8%)	73 %	887
Grain	Simpsons - Roasted Barley	0.2 kg (3.8%)	70 %	1084
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.8%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	9.1 %
Boil	Marynka	25 g	20 min	9.1 %
Whirlpool	Tomyski	50 g	20 min	3 %
Dry Hop	Tomyski	100 g	3 day(s)	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Thames Valley Ale	Ale	Liquid	1200 ml	Wyeast Labs

Extras

Type	Name	Amount	Use for	Time
Water Agent	CaCl2	6 g	Mash	60 min
Water Agent	Lactic Acid	6 g	Mash	60 min
Fining	Whirlfloc-T	2.5 g	Boil	10 min