

Rauch doppelbock

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **21**
- SRM **13**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **60 liter(s)**
- Trub loss **5 %**
- Size with trub loss **63 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **72.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **51.3 liter(s)**
- Total mash volume **68.4 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **67 C**, Time **10 min**
- Temp **72 C**, Time **50 min**

Mash step by step

- Heat up **51.3 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **10 min** at **67C**
- Keep mash **50 min** at **72C**
- Sparge using **38.3 liter(s)** of **76C** water or to achieve **72.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (23.4%)	81 %	4
Grain	Monachijski	4 kg (23.4%)	80 %	16
Grain	Grodziski pszeniczny wędzony dębem	2 kg (11.7%)	80 %	3
Grain	Strzegom Pilzneński (wędzony na baczówce)	4 kg (23.4%)	80 %	4
Grain	Karmelowy Czerwony	1 kg (5.8%)	75 %	59
Grain	Special B Malt	0.4 kg (2.3%)	65.2 %	315
Grain	Red active	1 kg (5.8%)	80 %	40
Grain	Brown crisp	0.45 kg (2.6%)	70 %	128
Grain	Simpsons - Crystal Extra Dark	0.25 kg (1.5%)	74 %	420

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook pl	30 g	60 min	9.1 %

Boil	Chinook	70 g	20 min	9.1 %
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Yeasts

Name	Type	Form	Amount	Laboratory
Gęstwa	Ale	Slant	500 ml	Browar Podgórz