

Rauch Roggenbier

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **19**
- SRM **12.6**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **14.3 liter(s)**
- Total mash volume **19.9 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **79 C**, Time **0 min**

Mash step by step

- Heat up **14.3 liter(s)** of strike water to **48.8C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **79C**
- Sparge using **24.5 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2.5 kg (43.9%)	85 %	8
Grain	Wędzony Bestmalz	2 kg (35.1%)	82 %	5
Grain	Pilzneński	0.5 kg (8.8%)	81 %	4
Grain	Monachijski IREKS	0.3 kg (5.3%)	79 %	22
Grain	Karmelowy 400 Ebony	0.4 kg (7%)	75 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mittelfruh	50 g	80 min	3.5 %
Aroma (end of boil)	Hersbrucker	40 g	10 min	2.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
WB-06	Wheat	Slant	200 ml	Fermentis