

Roggenbier

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **17**
- SRM **16.2**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.1 liter(s)**
- Total mash volume **24.5 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **19.1 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	3 kg (55%)	85 %	8
Grain	Strzegom Pilzneński	1.5 kg (27.5%)	80 %	4
Grain	Strzegom Monachijski typ II	0.5 kg (9.2%)	79 %	22
Grain	Caraaroma	0.25 kg (4.6%)	78 %	400
Grain	Weyermann Specjal W	0.1 kg (1.8%)	68 %	300
Grain	Strzegom Czekoladowy jasny	0.05 kg (0.9%)	68 %	400
Grain	Strzegom pszenica prażona	0.05 kg (0.9%)	70 %	1000

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %