

ROGGENBIER 10

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **18**
- SRM **7.4**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **11 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 **1 min**

Mash step by step

- Heat up **8.3 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **79C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	1.7 kg (61.8%)	85 %	8
Grain	Monachijski	0.5 kg (18.2%)	80 %	16
Grain	Pilzneński	0.4 kg (14.5%)	81 %	4
Grain	Caramunich® typ I	0.15 kg (5.5%)	73 %	80

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Spalt Select	15 g	60 min	5.2 %
Boil	Hallertau Spalt Select	5 g	15 min	5.2 %