

ROGUS

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **20**
- SRM **9**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 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 **5 min**

Mash step by step

- Heat up **15.9 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 **5 min** at **79C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (47.2%)	81 %	4
Grain	Żytni	2 kg (37.7%)	85 %	8
Grain	Strzegom Monachijski typ I	0.4 kg (7.5%)	79 %	16
Grain	Karmelowy żytni Strzegom	0.4 kg (7.5%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	25 g	60 min	5.5 %
Boil	Tradition	15 g	15 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Bavarian Wheat	Ale	Liquid	100 ml	Wyeast Labs