

# 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<br>Monachijski typ I | 0.4 kg (7.5%)  | 79 %  | 16  |
| Grain | Karmelowy żytni<br>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<br>Wheat | Ale  | Liquid | 100 ml | Wyeast Labs |