

CZARNY JÓZEF

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **24**
- SRM **25.8**
- Style **American Brown Ale**

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 **27.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 5 kg (80.6%) | 80 % | 5 |
| Grain | Strzegom Karmel 300 | 0.35 kg (5.6%) | 70 % | 299 |
| Grain | Karmelowy żytni Strzegom | 0.3 kg (4.8%) | 75 % | 150 |
| Grain | Pszeniczny | 0.3 kg (4.8%) | 85 % | 4 |
| Grain | Strzegom Barwiący | 0.25 kg (4%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-----------|--------|--------|------------|
| Boil | Magnat | 20 g | 60 min | 12.5 % |
| Whirlpool | Tradition | 50 g | 0 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|-------|---------|------------|
| FM13 Irlandzkie Ciemności | Ale | Slant | 1500 ml | 2 |
| Drożdże po Black IPA | | | | |

Extras

| Type | Name | Amount | Use for | Time |
|-------|---------|--------|---------|--------|
| Other | Glukoza | 500 g | Boil | 10 min |