

Czarny Andrzej z Bronxu

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **38**
- SRM **36.2**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **68 C**, Time **10 min**
- Temp **90 C**, Time **1 min**

Mash step by step

- Heat up **15.4 liter(s)** of strike water to **75.5C**
- Add grains
- Keep mash **10 min** at **68C**
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **90C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **21.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 3 kg (62.5%) | 80 % | 5 |
| Grain | Viking Munich Malt | 0.8 kg (16.7%) | 78 % | 20 |
| Grain | Słód owsiany Fawcett | 0.5 kg (10.4%) | 61 % | 5 |
| Grain | Jęczmień palony | 0.25 kg (5.2%) | 55 % | 1100 |
| Grain | Weyermann - Carafa III | 0.25 kg (5.2%) | 70 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Magnum | 15 g | 60 min | 12.9 % |
| Boil | Magnum | 15 g | 20 min | 12.9 % |
| Dry Hop | Equinox | 150 g | 1 day(s) | 14 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |