

CzarnoBrody AA

- Gravity **13.6 BLG**
- ABV ---
- IBU **95**
- SRM **48.6**
- Style **American Stout**

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 **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **67 C**, Time **70 min**
- Temp **75 C**, Time **2 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **2 min** at **75C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt | 3.7 kg (75.5%) | 85 % | 7 |
| Grain | Barley, Flaked | 0.5 kg (10.2%) | 70 % | 4 |
| Grain | Weyermann Carafo Special I | 0.3 kg (6.1%) | 70 % | 800 |
| Grain | Jęczmień palony | 0.3 kg (6.1%) | 55 % | 985 |
| Grain | Weyerermann Pszeniczny Czekoladowy | 0.1 kg (2%) | 73 % | 1001 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|----------|------------|
| Boil | Citra | 40 g | 60 min | 12.4 % |
| Boil | Citra | 10 g | 30 min | 12.4 % |
| Boil | Citra | 10 g | 5 min | 12.4 % |
| Boil | Galaxy | 15 g | 30 min | 13.6 % |
| Boil | Galaxy | 15 g | 5 min | 13.6 % |
| Dry Hop | Galaxy | 30 g | 3 day(s) | 13.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |