

# Czarny wyśłodek

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **44**
- SRM **5**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.3 liter(s)**
- Total mash volume **15 liter(s)**

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 3.75 kg (100%) | 80 %  | 7   |

## Hops

| Use for   | Name    | Amount  | Time     | Alpha acid |
|-----------|---------|---------|----------|------------|
| Boil      | Warrior | 18.75 g | 60 min   | 15.5 %     |
| Boil      | Citra   | 7.5 g   | 5 min    | 12 %       |
| Whirlpool | Citra   | 15 g    | 0 min    | 12 %       |
| Dry Hop   | Citra   | 15 g    | 4 day(s) | 12 %       |
| Dry Hop   | Equinox | 22.5 g  | 4 day(s) | 13.1 %     |

## Yeasts

| Name        | Type | Form  | Amount  | Laboratory |
|-------------|------|-------|---------|------------|
| Safale S-04 | Ale  | Slant | 37.5 ml | Safale     |

## Extras

| Type  | Name                               | Amount | Use for | Time   |
|-------|------------------------------------|--------|---------|--------|
| Spice | Skórka gorzkiej pomarańczy curacao | 15 g   | Boil    | 15 min |

## Notes

- Piwo robione na wystodzinach z warki #8 (Risssuję)  
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