

Polish ćerne ale

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **24**
- SRM **11**

Batch size

- Expected quantity of finished beer **70 liter(s)**
- Trub loss **5 %**
- Size with trub loss **73.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **88.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **35.4 liter(s)**
- Total mash volume **47.2 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-----------------------|----------------------------|----------------|-------|------|
| Grain | Pilzneński | 8 kg (67.8%) | 81 % | 4 |
| Grain | Monachijski | 2.5 kg (21.2%) | 80 % | 16 |
| Grain | Żytni | 0.7 kg (5.9%) | 85 % | 8 |
| Grain | Weyermann - Carafa I | 0.15 kg (1.3%) | 70 % | 690 |
| dodane na wyśładzanie | | | | |
| Grain | Carafa III | 0.15 kg (1.3%) | 70 % | 1034 |
| dodane na wyśładzanie | | | | |
| Grain | Strzegom Czekoladowy jasny | 0.3 kg (2.5%) | 68 % | 400 |
| dodane na wyśładzanie | | | | |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | marynka | 28 g | 30 min | 8.8 % |
| Boil | Cascade PL | 50 g | 30 min | 5.5 % |
| Boil | Cascade PL | 50 g | 5 min | 5.5 % |
| Boil | Magnum | 14 g | 60 min | 13.5 % |
| Boil | Cascade PL | 50 g | 1 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------------|------|-------|--------|-----------------|
| Mangrove Jack's M44 US West Coast | Ale | Slant | 300 ml | Mangrove Jack's |