

Angielskie bitter

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **51**
- SRM **16.8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **23.3 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt | 4.5 kg (77.3%) | 80 % | 5 |
| Grain | caramel pils | 1 kg (17.2%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (3.4%) | 68 % | 1200 |
| Grain | Fawcett - Pale Crystal | 0.12 kg (2.1%) | 72.8 % | 90 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------|--------|--------|------------|
| Boil | English Golding | 25 g | 60 min | 4.8 % |
| Aroma (end of boil) | English Golding | 20 g | 30 min | 4.8 % |
| Boil | flyer | 25 g | 60 min | 9 % |
| Aroma (end of boil) | flyer | 10 g | 30 min | 9 % |
| Aroma (end of boil) | flyer | 15 g | 10 min | 9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|------|-------|--------|------------|
| US West Coast | Ale | Slant | 200 ml | Gozdawa |