

#22

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **40**
- SRM **4.8**
- 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 **19.1 liter(s)**
- Total mash volume **25.5 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (78.4%) | 80 % | 5 |
| Grain | Pilznieński | 1 kg (15.7%) | 81 % | 4 |
| Grain | Pszeniczny | 0.25 kg (3.9%) | 85 % | 4 |
| Grain | Cookie Viking malt | 0.125 kg (2%) | 75 % | 50 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 25 g | 60 min | 15.5 % |
| Aroma (end of boil) | Cascade PL | 25 g | 10 min | 5.2 % |
| Dry Hop | Centennial | 28 g | 7 day(s) | 10.5 % |
| Dry Hop | Chinook | 28 g | 7 day(s) | 13 % |
| Dry Hop | Cascade | 28 g | 7 day(s) | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|-------|--------|------------------|
| fm45 | Ale | Slant | 30 ml | fermentum mobile |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------------|--------|---------|--------|
| Flavor | skórka pomarańczy | 50 g | Boil | 10 min |