

Better Bitter

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **13.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **3 %**
- Size with trub loss **41.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **50 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **31.8 liter(s)**
- Total mash volume **40.9 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **31.8 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **27.3 liter(s)** of **76C** water or to achieve **50 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Pale Ale | 8 kg (87.9%) | 79 % | 6 |
| Grain | Fawcett - Crystal | 1 kg (11%) | 70 % | 160 |
| Grain | Strzegom Czekoladowy ciemny | 0.1 kg (1.1%) | 68 % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Chinook PL | 30 g | 60 min | 9.1 % |
| Boil | East Kent Goldings | 50 g | 15 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale | Dry | 5 g | Danstar |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|---------|--------|
| Water Agent | gips piwowarski | 2 g | Mash | 60 min |