

Full Aroma Hops

- Gravity **11.6 BLG**
- ABV ---
- IBU **53**
- SRM **6.7**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

Steps

- Temp **67 C**, Time **90 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **22.5 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 5 kg (93.5%) | 79 % | 6 |
| Grain | Strzegom pszeniczny | 0.25 kg (4.7%) | 81 % | 6 |
| Grain | Strzegom Karmel 150 | 0.1 kg (1.9%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Marynka | 40 g | 90 min | 9 % |
| Aroma (end of boil) | Lublin (Lubelski) | 40 g | 45 min | 4 % |
| Whirlpool | Lublin (Lubelski) | 20 g | 30 min | 4 % |
| Dry Hop | Lublin (Lubelski) | 20 g | 5 day(s) | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 150 ml | Safale |