

siedem na raz

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **30**
- SRM **11.2**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (63.7%) | 80 % | 5 |
| Grain | Strzegom Wiedeński | 1 kg (21.2%) | 79 % | 10 |
| Grain | Weyermann Caramunich 3 | 0.5 kg (10.6%) | 76 % | 150 |
| Grain | Strzegom Karmel 150 | 0.213 kg (4.5%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 30 g | 60 min | 5.1 % |
| Aroma (end of boil) | East Kent Goldings | 40 g | 15 min | 5.1 % |
| Aroma (end of boil) | East Kent Goldings | 30 g | 1 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |