

Full Aroma Hops (Carlberg)

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **33**
- SRM **3.4**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **28.8 liter(s)**

Steps

- Temp **40 C**, Time **1 min**
- Temp **61 C**, Time **10 min**
- Temp **71 C**, Time **45 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **42.6C**
- Add grains
- Keep mash **1 min** at **40C**
- Keep mash **10 min** at **61C**
- Keep mash **45 min** at **71C**
- Keep mash **10 min** at **76C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-------------|-------|-----|
| Grain | Strzegom Pilznieński | 6 kg (100%) | 80 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Boil | Lublin (Lubelski) | 30 g | 25 min | 4 % |
| Aroma (end of boil) | Lublin (Lubelski) | 15 g | 5 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|------|------|--------|------------|
| Safbrew US-04 | Ale | Dry | 11.5 g | --- |