# **FULL AROMA**

- Gravity 12.4 BLG
- ABV **5** %
- IBU **37**
- SRM **3.7**

#### **Batch size**

- Expected quantity of finished beer 11 liter(s)
- Trub loss 5 %
- Size with trub loss 11.6 liter(s)
- Boil time 60 min
- Evaporation rate 10 %/h
- Boil size 14 liter(s)

### **Mash information**

- Mash efficiency 80 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 7.5 liter(s)
- Total mash volume 10 liter(s)

#### Steps

- Temp 40 C, Time 0 min
  Temp 62 C, Time 10 min
  Temp 72 C, Time 45 min
- Temp **76 C**, Time **10 min**

# Mash step by step

- Heat up 7.5 liter(s) of strike water to 43.3C
- Add grains
- Keep mash 0 min at 40C
- Keep mash 10 min at 62C
- Keep mash 45 min at 72C
- Keep mash 10 min at 76C
- Sparge using 9 liter(s) of 76C water or to achieve 14 liter(s) of wort

### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.5 kg <i>(100%)</i>	82 %	4.5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	13.2 %
Boil	Lublin (Lubelski)	15 g	15 min	4.3 %
Boil	Cascade	15 g	5 min	7.8 %