# Cztery zboża

- Gravity 17.1 BLG
- ABV ----
- IBU **34**
- SRM **8**
- Style Saison

### **Batch size**

- Expected quantity of finished beer 20 liter(s)
- Trub loss 10 %
- Size with trub loss 22 liter(s)
- · Boil time 60 min
- Evaporation rate 15 %/h
- Boil size 25.3 liter(s)

#### **Mash information**

- Mash efficiency 86 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 18 liter(s)
- Total mash volume 24 liter(s)

### **Steps**

- Temp 55 C, Time 10 min
  Temp 64 C, Time 45 min
  Temp 72 C, Time 15 min
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up 18 liter(s) of strike water to 60.8C
- Add grains
- Keep mash 10 min at 55C
- · Keep mash 45 min at 64C
- Keep mash 15 min at 72C
- Keep mash 10 min at 78C
- Sparge using 13.3 liter(s) of 76C water or to achieve 25.3 liter(s) of wort

### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2 kg <i>(33.3%)</i>	79 %	6
Grain	Weyermann pszeniczny ciemny	1 kg <i>(16.7%)</i>	80 %	18
Grain	Rye Malt	1 kg <i>(16.7%)</i>	63 %	10
Grain	Weyermann - Vienna Malt	1 kg <i>(16.7%)</i>	81 %	8
Grain	Oats, Flaked	1 kg (16.7%)	80 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	60 min	8 %
Whirlpool	Amarillo	15 g	60 min	8.9 %
Whirlpool	Centennial	15 g	60 min	8.5 %
Boil	Saaz (Czech Republic)	20 g	30 min	3 %
Boil	Kent Goldings	5 g	30 min	5.8 %

### **Yeasts**

Name	Туре	Form	Amount	Laboratory
Gozdawa U.S West Coast	Ale	Dry	10 g	Gozdawa