#Bierfestowe

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **21**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27 liter(s)**
- Total mash volume **36 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **27 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **32.6 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	7 kg *(77.8%)*	81 %	4
Grain	Strzegom Monachijski typ II	2 kg *(22.2%)*	79 %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	13.5 %
Aroma (end of boil)	Huell Melon	20 g	15 min	7.5 %
Aroma (end of boil)	Hallertau	10 g	15 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	Safale