IUMA

- Gravity **10 BLG**
- ABV **---**
- IBU **30**
- SRM **6.2**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **23.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg *(69.8%)*	79 %	6
Grain	Strzegom Monachijski typ II	1 kg *(23.3%)*	79 %	22
Grain	Caramel Pils Bestmallz	0.3 kg *(7%)*	75 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	15 g	60 min	11.2 %
Aroma (end of boil)	Magnat	10 g	15 min	11.2 %
Aroma (end of boil)	Iunga	10 g	15 min	11.6 %
Aroma (end of boil)	Magnat	15 g	0 min	11.2 %
Aroma (end of boil)	Iunga	15 g	0 min	11.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Liberty Bell M36 Mangrove Jack's	Ale	Dry	10 g	Mangrove Jascks

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	5 g	Boil	15 min