

amerykańskie resztki :D

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **36**
- SRM **4.7**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **63.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33.3 liter(s)**
- Total mash volume **44.4 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	2.5 kg (22.5%)	85 %	4
Grain	zakwaszający	0.15 kg (1.4%)	85 %	4
Grain	Monachijski	2 kg (18%)	80 %	16
Grain	Żytni	2 kg (18%)	85 %	8
Grain	Karmelowy Jasny 30EBC	0.2 kg (1.8%)	75 %	30
Grain	wędzony jabłoniom	4.25 kg (38.3%)	81 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	chinook PL	50 g	15 min	10 %
Boil	marynka	4 g	60 min	8.8 %
Boil	Willamette	50 g	25 min	7.3 %
Boil	cascade PL	123 g	10 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's