

## ręczna robota

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- Gravity **12.9 BLG**
- ABV ---
- IBU **45**
- SRM **40**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.2 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **18.6 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.95 kg (50.9%)	80 %	4
Grain	Strzegom Monachijski typ I	1.95 kg (33.6%)	79 %	16
Grain	Strzegom Czekoladowy 1200	0.3 kg (5.2%)	68 %	1202
Grain	Strzegom Karmel 600	0.3 kg (5.2%)	68 %	601
Grain	Fawcett - Pszeniczny Czekoladowy	0.3 kg (5.2%)	73 %	1001

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	33 g	60 min	11.6 %
Boil	Cascade	20 g	20 min	6 %
Aroma (end of boil)	Cascade	36 g	0 min	6 %
Dry Hop	Endeavour	30 g	3 day(s)	7.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis