

# chaos

---

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **30**
- SRM **4**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **50 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	3 kg (60%)	81 %	4
Grain	Pilzneński	1 kg (20%)	81 %	4
Grain	Viking Pale Ale malt	0.5 kg (10%)	80 %	5
Grain	Strzegom Wiedeński	0.5 kg (10%)	79 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	100 g	25 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
s-33	Lager	Dry	11.5 g	---

## Notes

- [frankca.pl/tl](http://frankca.pl/tl)  
Aug 31, 2018, 5:42 PM