

Purgatory-“Das ist kein verdammtes Helles.”

Munich Helles
Recipe by **DOUG WALKER**



Batch Size	Losses	Boil Time	Mash Efficiency	Mash Volume	Sparge Volume
44 L	1.5 L	60 mins	82%	27.12 L	28.85 L
OG (SG)	FG (SG)	IBU	Colour (SRM)	ABV	
1.046	1.008	19.1	3.1	4.94%	

Mash and Sparge volumes calculated using the "Grainfather-G40" profile.

Fermentables

	Amount	Usage	PPG	SRM
Pilsner Supplier: Weyermann	6.85 kg (85%)	Mash	37.8	1.7
Vienna Malt Supplier: Weyermann	1.01 kg (12%)	Mash	37.8	3.0
Wheat Malt - Pale Supplier: Weyermann	0.23 kg (3%)	Mash	37.8	2.0

Mash Steps

	Temp	Time
Beta	62 °C	30 min
Alpha	68 °C	30 min
Mash Out	77 °C	10 min

Hops

	Amount	Type	Usage	Time	AA
Magnum (IBU: 8.1)	9.50 g (15%)	Pellet	Boil	60 min	14
Hallertauer Mittelfruh (IBU: 11.0)	54.60 g (85%)	Pellet	Boil	15 min	4.9

Yeast

	Amount	Attenuation
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SafLager Lager	1 packets	83 %
Product Code: W-34/70		

Extras	Amount	Usage	Time
Whirlfloc	0.82727272727273 each	Mash	0 min
Fermax Yeast Nutrient	4.96 g	Mash	0 min

Water Additions	Mash	Sparge
Salt & Acid additions		
Calcium Chloride	1.56 g	
Calcium Sulphate (Gypsum)	4.67 g	

Fermentation Steps	Temp	Time
Fermentation 1	13 °C	4 days
Fermentation Step 2	15 °C	2 days
Fermentation Step 3	17 °C	2 days
Fermentation Step 4	20 °C	6 days

Notes
