

PHYSICAL DEMANDS ANALYSIS (EXAMPLE)
ROOFER | TORCH ON MEMBRANE

JOB DESCRIPTION

TASK #	TASK DESCRIPTION	% OF SHIFT
1	Load materials, drive to the site and unload.	5%
2	Set up fall protection plan and load materials and equipment to roof.	10%
3	Demolition Phase – remove existing membrane, coverboard, insulation, vapour barrier and Q decking and dispose. Uses chain saws, utility knives, shovels, spades, roof cutter.	20%
4	Lay Q decking, drywall/densdeck and vapour barrier. Uses adhesive.	20%
5	Install insulation.	15%
6	Finish with mopping the membrane and gravel using propane and torch for hot asphalt or bitumen.	20%
7	Clean site of excess Q decking, densdeck, insulation, membrane, and garbage. Remove ladders.	5%
8	Drive back to shop and unload as required.	5%

*The physical demands may vary depending on company and location.
 Confirm this physical demands analysis is an accurate representation of the specific job.*

ITEMS HANDLED

- Chain saws (12 lb.)
- Utility knives (0.5 lb.)
- Shovels (6 lb.)
- Spades (6 lb.)
- Roof cutter
- Hoist
- Crane (if available)
- Power pack blower (22 lb.)
- Drill (2 lb.)
- Tape measure
- Propane tanks
- Dolly
- Push brooms (8 lb.)
- Torch gun (4 lb.)
- Cane guide
- Trowel
- Ladders (up to 36 ft. – 70 lb.)
- Fall arrest equipment (23 lb.)
- Safety railings
- Pylons (12 lb.)

MATERIALS

- Insulation
- Membrane (60 lb.)
- Finishing (depending on site specifics)
- Drywall/densdeck (57/66 lb.)
- Vapour barrier rolls (80 lb.)
- Q decking

PERSONAL PROTECTIVE EQUIPMENT

- Heat resistant gloves for torching
- Work boots
- Safety glasses/face shield
- Long sleeves and pants
- Fall protection equipment

ENVIRONMENTAL EXPOSURE

Works on rooftops. Exposed to heat, wind, storms, rain, dust (during demolition), asphalt/tar fumes.

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JOB TITLE	ROOFER - TORCH ON MEMBRANE					LENGTH OF SHIFT (HRS)	8
JOB DESCRIPTION							
The worker is required to complete demolition of the pre-existing roof, lay the Q decking (if not previously installed), drywall/densdeck and vapour barrier, secure the insulation in order to install the roof membrane using the torch gun and trowel.							
PHYSICAL JOB DEMANDS - Grade using a scale of 0 - 4							
0 = NOT REQUIRED		1 = SELDOM REQUIRED: < 5%			2 = MINOR REQUIREMENT: 5-33%		
-		Less than 30 minutes per day or not daily			30 minutes up to 3.5 hours per day or 1 repetition every 30 minutes		
3 = OCCASIONAL REQUIREMENT: 34-66%				4 = FREQUENT REQUIREMENT: 67-100%			
3.5 hours up to 6.5 hours per day or 1 repetition every 2 minutes				6.5 hours per day up to shift length or 1 repetition every 30 seconds			
INSTRUCTIONS: Place an X under number 0,1,2,3 or 4 to identify the frequency of each body demand or exposure.							
PHYSICAL JOB DEMANDS	0	1	2	3	4	DESCRIBE THE TASK(S) PERFORMED	
WHOLE BODY DEMANDS							
SITTING			X			Driving to and from site, during breaks.	
SITTING WITH VIBRATION/JARRING	X					-	
DRIVING			X			Driving to and from site.	
STANDING				X		While on roof, during demolition and installation, walking on site.	
RUNNING	X					-	
WALKING							
LEVEL				X		Roof.	
UNEVEN GROUND			X			Exterior of site.	
SLOPES / RAMPS	X					-	
CLIMBING							
REGULAR STAIRS		X				To access the roof.	
STEEP STAIRS		X				To access roof using elevating work platform or scissor lift or scaffolding.	
LADDERS			X			To access roof or access scissor lift. Frequency depending on site.	
OTHER	X					-	
LOW LEVEL WORK							
KNEELING	X					-	
SQUATTING			X			During installation of membrane on parapet, fall arrest equipment and safety railings, demolition, preparation, and installation of roofing membranes, during site clean up.	
CRAWLING			X			During installation of vapour barrier and drywall/densdeck (securing to Q decking), membrane on parapet.	

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PHYSICAL JOB DEMANDS	0	1	2	3	4	DESCRIBE THE TASK(S) PERFORMED
SPECIFIC BODY DEMANDS						
NECK MOVEMENTS						
BENDING						
SUSTAINED					X	Loading/unloading materials and equipment, during installation of fall arrest equipment and safety railings, demolition of previous roof, installation of Q decking (as necessary), drywall/densdeck, vapour barrier, insulation and membrane, operating torch gun, cane guide and trowel, power pack blower, site clean up, checking surroundings. Looking up to use manual (rope) or mechanical (hoist/crane) method to load/unload materials and equipment on roof (ground position), reviewing site from ground level, loading/unloading materials, and equipment onto/from truck.
REPETITIVE	X					-
TWISTING						
SUSTAINED	X					-
REPETITIVE			X			While loading/unloading materials and equipment, during installation of fall arrest equipment and safety railings, demolition of previous roof, installation of Q decking (as necessary), drywall/densdeck, vapour barrier, insulation and membrane, operating torch gun, cane guide and trowel, power pack blower, site clean up, checking surroundings.
TRUNK MOVEMENTS						
BENDING						
SUSTAINED	X					-
REPETITIVE				X		During installation of fall arrest equipment and safety railings, guiding hoist, demolition, preparation, and installation of roofing materials/membranes, during site clean up.
TWISTING						
SUSTAINED	X					-
REPETITIVE			X			Checking progress of roof demolition and installation, while using torch gun and cane guide with trowel, power pack blower, during site clean up, loading and unloading materials and equipment from work truck.
SHOULDER MOVEMENTS						
OVERHEAD		X				Assisting/controlling materials and equipment while using manual (rope) or mechanical method for transfer onto/off the roof, setting up/securing ladder, pushing ladder onto work truck rack, removing garbage from site as necessary, etc.
FORWARD REACHING					X	Loading/unloading materials and equipment from work truck, drilling drywall/densdeck to install onto Q decking, reaching across the body to use torch gun/cane guide and trowel, removing garbage using the chute, operating power pack blower, securing or adjusting drywall/densdeck, insulation, vapour barrier, membrane, etc.

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PHYSICAL JOB DEMANDS	0	1	2	3	4	DESCRIBE THE TASK(S) PERFORMED
GRIPPING DEMANDS						
DOMINANT HAND						
REPETITIVE	X					-
CONTINUOUS					X	Handling materials and equipment while loading/unloading truck, at the shop and on site, moving materials onto/from the roof using hoist/crane/rope method, gripping steering wheel while driving, during roof demolition, preparing and installing Q decking (as necessary), drywall/densdeck, vapour barrier, insulation, membrane, operating and preparing torch gun and cane guide, trowel, installing fall arrest equipment, safety railings and ladders, using various tools, removing garbage and site clean up, etc.
NON-DOMINANT HAND						
REPETITIVE	X					-
CONTINUOUS				X		Handling materials and equipment while loading/unloading truck, at the shop and on site, moving materials onto/from the roof using hoist/crane/rope method, gripping steering wheel while driving, during roof demolition, preparing and installing Q decking (as necessary), drywall/densdeck, vapour barrier, insulation, membrane, operating and preparing torch gun and cane guide, trowel, installing fall arrest equipment, safety railings and ladders, using various tools, removing garbage and site clean up, etc.
FINGER DEXTERITY				X		Using screws and drill to install drywall/densdeck, removing cover from vapour barrier, preparing torch gun & cane guide, etc.
MANUAL HANDLING DEMANDS						
LIFTING						
LIGHT (MAX 20 LB / 9 KG)				X		Lifting lighter materials and equipment including: chainsaws (12 lb.), torch gun (4 lb.), cane guide, trowel, push brooms (8 lb.), various tools, garbage on site, etc. when loading/unloading truck, project site, during site clean up, and while on the roof during demolition and roof installation.
MEDIUM (MAX 50 LB / 22.5 KG)			X			Lifting heavier materials and equipment including: power pack blower (22 lb.), fall arrest equipment (23 lb.), tool bag (26 lb.), etc. when loading/unloading truck, project site, during site clean up, and while on the roof during demolition and roof installation.
HEAVY (MAX 100 LB / 45 KG)			X			Lifting materials and equipment including Q decking (as necessary), insulation, drywall/densdeck (57/66 lb.), membrane (60 lb.), finishing, ladders (up to 70 lb.), etc.
VERY HEAVY (OVER 100 LB / 45 KG)	X					-
CARRYING						
LIGHT (MAX 20 LB / 9 KG)				X		Carrying various materials and equipment including torch guns (4 lb.), cane guide, trowel, chainsaw (12 lb.), push brooms (8 lb.), spades and shovels (6 lb.), garbage, etc. throughout site and on the roof.
MEDIUM (MAX 50 LB / 22.5 KG)	X					-
HEAVY (MAX 100 LB / 45 KG)			X			Carrying materials and equipment including fall arrest equipment (23 lb.), tool bag (26 lb.) membrane (60 lb.), finishing, insulation, drywall/densdeck (57/66 lb.), etc.
VERY HEAVY (OVER 100 LB / 45 KG)	X					-

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PHYSICAL JOB DEMANDS	0	1	2	3	4	DESCRIBE THE TASK(S) PERFORMED
MOBILE PUSHING						
LIGHT (MAX 20 LB / 9 KG)			X			May push/pull cart or dolly with materials or garbage.
MEDIUM (MAX 50 LB / 22.5 KG)	X					-
HEAVY (MAX 100 LB / 45 KG)	X					-
VERY HEAVY (OVER 100 LB / 45 KG)	X					-
MOBILE PULLING						
LIGHT (MAX 20 LB / 9 KG)			X			May pull/push cart or dolly with materials or garbage.
MEDIUM (MAX 50 LB / 22.5 KG)	X					-
HEAVY (MAX 100 LB / 45 KG)	X					-
VERY HEAVY (OVER 100 LB / 45 KG)	X					-
STATIC PUSHING/PULLING						
LIGHT (MAX 20 LB / 9 KG)	X					-
MEDIUM (MAX 50 LB / 22.5 KG)			X			Finishing stages requires pulling to reposition/lay vapour barrier, insulation, drywall/densdeck and Q decking, removing previous roofing from Q decking, pushing drill into drywall/densdeck (35.5 lb.), pushing to use roof cutter, using spades/shovels, etc.
HEAVY (MAX 100 LB / 45 KG)	X					-
VERY HEAVY (OVER 100 LB / 45 KG)	X					-