

PHYSICAL DEMANDS ANALYSIS (EXAMPLE)
ROOFER | ADHESIVE MEMBRANE

JOB DESCRIPTION

TASK #	TASK DESCRIPTION	% OF SHIFT
1	Load materials, drive to the site and unload.	5%
2	Set up ladders, install fall protection anchors and/or safety railings, and transfer materials and equipment to roof using ropes, hoist, elevating work platform, etc.	10%
3	Demolition Phase – remove pre-existing membrane, coverboard, insulation, vapour barrier and Q decking by cutting material into cubes and disposing down the chute. Uses chain saws, utility knives, shovels, spaces, roof cutters.	20%
4	Lay Q decking, drywall/DensDeck and vapour barrier using screws and plates. Roll on adhesive. Repeat for vapour barrier.	20%
5	Install insulation using a two-part adhesive dispenser.	15%
6	Finish with adhesive membrane and use torch gun to adhere one piece to another.	20%
7	Clean site of excess Q decking, DensDeck, insulation, membrane, and garbage. Remove ladders, fall equipment, etc.	5%
8	Drive back to the shop and unload as required.	5%

*The physical demands may vary depending on the company and location.
 Confirm that 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
- Power pack blower (22 lb.)
- Drill (2 lb.)
- Tape measure
- Propane tanks
- Dolly
- Torch gun
- Two-part adhesive dispenser (15 lb.)
- Ladders (up to 36 ft. – 70 lb.)
- Fall arrest equipment (23 lb.)
- Safety railings
- Pylons (12 lb.)

MATERIALS

- Insulation
- Adhesive Membrane (100 lb.)
- Drywall/DensDeck (57/66 lb.)
- Vapour barrier rolls (80 lb.)
- Q decking

PERSONAL PROTECTIVE EQUIPMENT

- Fall protection equipment
- Long sleeves and pants
- Work Boots
- Gloves

ENVIRONMENTAL EXPOSURE

Works on rooftops. Exposed to heat, wind, storms, rain, dust (during demolition), and adhesive fumes.

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JOB TITLE	ROOFER - ADHESIVE 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 with adhesive, and lastly, install the roof membrane.							
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.	
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, scissor lift or scaffolding.	
LADDERS			X			To access roof or access scissor lift. Frequency depending on the site.	
OTHER	X					-	
LOW LEVEL WORK							
KNEELING	X					-	
SQUATTING			X			During installation of the membrane on the parapet, fall arrest equipment and safety railings, demolition, preparation, and installation of roofing membranes, and during site clean up.	
CRAWLING			X			During the installation of the vapour barrier and drywall/ DensDeck (securing to Q decking).	

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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	<p>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 adhesive membrane, operating roof cutter, two-part adhesive dispenser, power pack blower, torch gun.</p> <p>Looking up to use manual (rope) or mechanical (hoist/crane) method to load/unload materials and equipment on the roof (ground position), reviewing the site from ground level, loading/unloading materials and equipment onto/from the truck.</p>
REPETITIVE	X					-
TWISTING						
SUSTAINED	X					-
REPETITIVE			X			<p>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 adhesive membrane, operating roof cutter, two-part adhesive dispenser, torch gun, power pack blower.</p>
TRUNK MOVEMENTS						
BENDING						
SUSTAINED	X					-
REPETITIVE				X		<p>During installation of fall arrest equipment and safety railings, guiding hoist, demolition, preparation and installation of roofing materials/membranes, during site clean up.</p>
SHOULDER MOVEMENTS						
OVERHEAD		X				<p>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.</p>
FORWARD REACHING					X	<p>Loading/unloading materials and equipment from work truck, drilling drywall/DensDeck to install onto Q decking, reaching across the body to lay adhesive, removing garbage using the chute, operating powerpack blower, and roof cutter, securing or adjusting drywall/DensDeck, insulation, vapour barrier, etc.</p>

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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, 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, 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, operate two-part adhesive dispenser and torch gun, etc.
MANUAL HANDLING DEMANDS						
LIFTING						
LIGHT (MAX 20 LB / 9 KG)				X		Lifting lighter materials and equipment including: chainsaws (12 lb.), two-part adhesive dispenser, various tools, garbage, pylons (12 lb.).
MEDIUM (MAX 50 LB / 22.5 KG)			X			Lifting heavier materials and equipment, including: powerpack 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 (80 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: shovels (6 lb.), adhesive dispenser (15 lb.), chainsaw (12 lb.), garbage, etc., throughout the site and on the roof.
MEDIUM (MAX 50 LB / 22.5 KG)			X			Carrying materials and equipment including: fall arrest equipment (23 lb.), tool bag (26 lb.).
HEAVY (MAX 100 LB / 45 KG)			X			Carrying membrane (68 lb.), finishing, insulation, drywall/DensDeck (57/66 lb.), etc. *often two people.

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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					-
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					-
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.), painting adhesive onto drywall/DensDeck (20.5 lb push, 17.5lb pull), using spades/shovels, etc.
HEAVY (MAX 100 LB / 45 KG)	X					-
VERY HEAVY (OVER 100 LB / 45 KG)	X					-